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REMARKS AND ARGUMENTS

ON THE SPECIFICATION:

As noted above, applicant agrees to cooperate and work to correct any errors in the specification.

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DRAWINGS – 37 CFR 1.183(a)

The examiner has objected to the drawing under 1.183(a) for failing to show every feature of the claims. Applicant responds that Fig. 1 in conjunction with the tables submitted is fully representative of the subject matter of claim 9. An understanding of 10 the disclosure in the specification will reveal that the elements of Fig. 1 are applicable to all the claims, including claim 9.

Applicant maintains the depiction of Fig. 1 is fully representative of all of the claims.

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ON THE CLAIMS

Rejection 35 U.S.C. 101

The examiner has rejected claims 1-9 claiming that the invention fails to produce useful, tangible, concrete results in the technological arts.

Applicant responds submitting his declaration and the declaration of twenty-five 20 (25) others, together with an additional thirty-nine (39) statements.

All of these declarations and statements support substantial, tangible results, and useful application of the disclosed methodology.

The declarations alone include:

- a) Eleven (11) Doctor of Chiropractic degrees (D.C.);
- b) Four (4) Medical Doctors (M.D.);
- c) Four (4) Ph.D.'s;

And numerous case studies.

5 The thirty-nine statements also further support the applicant's claims of utility and tangible useful results and practical application having real world value in the healing arts.

The examiner's basis for a 101 rejection is somewhat unclear, but at issue is whether one skilled in the arts would find the disclosed methodology useful. It is clear 10 from the enclosed declarations and statements that such utility in the field exists. Further, the applicant should not be penalized due to an examiner's lack of understanding of the field, or even whether the utility can be explained by known principals, though applicant has taken care to explain the scientific basis for the claimed utility in the filed specification. In re Chatfield, 545 F.2d 152, 191 USPQ 730, 735 (1976).

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Rejection 35 U.S.C. 112

Applicant responds to the examiner's 112 enablement rejection with the enclosed declarations and statements, specifically, declarations, 1-4 and 6-25, affirming that the disclosure provided is fully enabling. Further applicant provides a copy of the materials 20 provided to declarants, NMT: The Feinberg Technique, and applicant's own declaration of the relationship of the filed specification and the document enclosed.

Applicant argues that the filed specification is enabling to those in the field as supported by the enclosed declarations and statements.

Rejection 35 U.S.C. 102

The examiner has rejected Claims 1-4 and 8 under 102(b) as being unpatentable over Omura (5,188,107).

Applicant points out that Omura is a “vial type” method of response testing for imaging purposes and does not teach or enable therapeutic treatment. Omura claims and requires a sample of tissue for correlative or reactive testing and is thus limited in application to tissue sample related comparative imaging.

Applicant’s disclosed method eliminates and overcomes the deficiencies of “vial type” testing such as Omura and teaches a therapeutic responsive methodology for interrogation and resolution independent of correlative tissue samples.

As per applicants specification, applicant’s methodology is distinctive in utility and elements.

The examiner has rejected Claims 1-9 under 102(b) as being unpatentable over the disclosure of an archived WWW page.

Applicant responds that under 102(b) a rejection is proper if the invention is known or used publicly or commercially more than one year prior to application for an invention. The cited publication represents a disclosure of the method under development prior to any publication, commercial or public use. While the applicant traverses the enablement rejection of the examiner in the filed specification, applicant certainly maintains that the 102(b) internet archive citation of the examiner falls far short of enablement or publication of the applicants methodology and fails to disclose or teach the applicants methodology.

Further, pursuant to the enclosed declaration of the applicant and in response to the 1.105 requirement of the examiner, the first public offering or disclosure of the applicants claimed methodology was on or after September 16th, 2002.

5 1.105 Requirement

As per the examiner's requirement, applicant responds with the enclosed declaration and states:

- a) The first offering or public seminar of the disclosed method was held on or after September 16th, 2002.
- 10 b) Attendees were charged for admission.
- c) The materials disclosed at that seminar were of the sum and substance of the enclosed document, NMT: The Feinberg Technique.

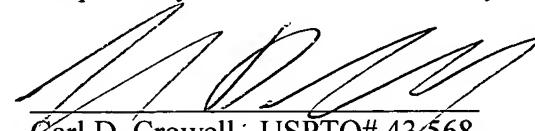
The enclosed document, NMT: The Feinberg Technique, being a refined and edited and further developed version of the original document provided to attendees.

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CONCLUSION

In view of the above remarks and arguments and the enclosed documents, reconsideration and allowance of the specification and claims is respectfully requested.

Respectfully submitted this 24th day of February, 2005, by:

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NMT:

The Feinberg

Technique

Protocols of NeuroModulation Technique

Comprehensive

Level Seminar

NMT Seminar Rules

1. No Recording Of NMT Seminars Is Permitted.
2. Questions will be taken frequently and answered completely, but please do not interrupt the presentation until questions are called for. Trust that the seminar is structured to bring everyone to a point by the end of the seminar that the materials are clear and each practitioner has the tools to go forward in developing skills in NMT: The Feinberg Technique.
3. NMT Seminars Grants License For Use Of The Information Presented In This Seminar To The Registered Seminar Attendee. Acceptance Of Ownership Of Manual Denotes Agreement That None Of The Information Presented Therein Will Be Transferred To Another Person Except To The Degree Necessary In The Treatment Of Your Patients. Do Not Take Possession Of This Manual If You Are Unable To Honor This Agreement.

Access

Assess

Modulate

NMT: The Feinberg Technique

Comprehensive Level Seminar

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1. The Historical Context of NMT

The Feinberg Technique

Protocols of NeuroModulation

What Do We Mean by Energetic Medicine?

Energetic medicine recognizes that we humans have an internal control system that has the capacity to respond to the circumstances in which we find ourselves in such a way as to maintain a homeostatic internal environment. It holds that when we become ill there is always some confusion of that system that compromises this

control system's optimal internal management of the body. All methods of energetic medicine must do three things to be effective. First, they must access that control system and establish some sort of interface with it. Second, they must assess the way in which that control system has deviated from optimal function. Lastly, they must afford some method of pushing the control system to modulate it back in the direction of optimal performance.

Various systems of energetic medicine date back thousands of years and include the development of acupuncture in China and Ayurvedic medicine in India. Much attention was focused on development of energetic systems of healing in early cultures due to limitations of economics and technology. The degree to which healing can be achieved through energetic measures, as opposed to healing that comes from the application of materials and technology, is one measure of the efficacy of that healing system. In our own culture, the marvel of modern medical technology is rivaled only by the fantastic rise in the cost of that medical system to

our society. Some aspects of modern medicine will never be replaced by energetic medicine. For example, the victim of a gunshot or an auto accident would do well to proceed directly to the local emergency room, since energetic suturing is not known to be very effective. When the subject turns to those very serious ongoing challenges to health that come from chronic degenerative disease, however, it is modern medicine that has very little to offer. Patients with conditions like arthritis, allergies, and autoimmune conditions of the gastrointestinal system, nervous system, connective tissue system, may look to modern medicine only with respect to temporary suppression of symptoms, and then often at the cost of unintended side effects of drugs and surgery.

The Ideal That Energetic Medicine Aspires To Is The Ability To Gain Perfect Access To That Subconscious Autonomic Regulatory System; To Thoroughly Assess Its Status; And To Modulate Its Function Until The Patient's Health Has Been Tuned To A Perfect Expression Of The Energetic and Neurological Control Systems Of The Body.

It does not matter whether healing is the result of the ministrations of a traditional African healer, an Inuit shaman, a Christian Scientist, any one of the methods of energetic healing that have developed in the alternative medicine community in recent decades, a prayer circle at the local church, NMT: The Feinberg Technique, or even, perhaps, acupuncture and similar procedures. All healing comes from within the body and is an expression of the programming inherent in all living things. The differences in efficacy of any of these or other methods of energetic medicine relate to such variables as how well the method establishes an interface between the healer and the patient (access), how well the method affords a way to look into that system of programming and visualize errors contributing to the patient's condition (assess)

, and finally how well structured, clear, and appropriate is the corrective information that is input to the patient (**modulate**). These are the only differences between one method of energetic medicine and another. Some methods of energetic medicine are clear about the role of projection of the intent of the practitioner in providing corrective information to the control systems of the patient. Other methods foster the illusion that particular elements of those procedures that do not have inherent informational content are significant in their own right, the special gestures, points, and paraphernalia of energetic medicine. A more informed view is that such procedural elements function as metaphor to assist the practitioner in forming intent with corrective content. Awareness of the practitioner that such is the case may, or may not be a characteristic of any particular system of healing.

The Blueprint for Life and for Healing

An essential question for the practitioner of energetic medicine to answer at the very beginning of the process to trigger healing for a patient is, "What is healing, what is the nature of it, and where does it come from?" In NMT we will take the position that data processing is the heart and soul of life and healing. Life begins with the combination of 23 pairs of chromosomes from each parent resulting in the genome of an embryonic new life consisting of 46 chromosomes occupying the nucleus of a single cell. There is, according to principles of the theory of formative causation, the concurrent presence of energetic fields that model the morphology of the material representation of our bodies. From this beginning unfolds all material structure, all rules of the physiology of growth, repair, disease, degeneration, and aging. The genome of each individual comprises a database utilizing a system of four base pairs ordered along two ribbons of chained deoxyribose sugar and phosphoric acid molecules. This system is otherwise a recording of an information state for a biological computer just as the arrangement of zeros and ones on the hard drive,

processors, and memory chips of a computer records an information state for that system. The combination of this chemical "hardware" and energetic "software" comprise the elements of the information storage system from which human life develops.

The Human Genome Project website discusses fundamentals of genomic information:

A genome is all of the DNA in an organism, including its genes. Genes carry information for making all the proteins required by all organisms. These proteins determine, among other things, how the organism looks, how well its body metabolizes food or fights infection, and sometimes even how it behaves.

DNA is made up of four similar chemicals (called bases and abbreviated A, T, C, and G) that are repeated millions or billions of times throughout a genome. The human genome, for example, has 3 billion pairs of bases arranged in a particular order for each unique individual.

The particular order of As, Ts, Cs, and Gs is extremely important. The order underlies all of life's diversity, even dictating whether an organism is human or another species such as yeast, rice, or fruit fly, all of which have their own genomes and are themselves the focus of genome projects. Because all organisms are related through similarities in DNA sequences, insights gained from nonhuman genomes often lend to new knowledge about human biology. To get an idea of the size of the human genome present in each of our cells, consider the following analogy: If the DNA sequence of the human genome were compiled in books, the equivalent of 200 volumes the size of a Manhattan telephone book (at 1000 pages each) would be needed to hold it all.

It would take about 9.5 years to read out loud (without stopping) the 3 billion bases in a person's genome sequence. This is calculated on a reading rate of 10 bases per second, equating 600 bases/minute, 36,000 bases/hour, 864,000 bases/day, 315,360,000 bases/year.

One million bases (called a megabase and abbreviated Mb) of DNA sequence data is roughly equivalent to 1 megabyte of computer data storage space. Since the human genome is 3 billion base pairs long, 3 gigabytes of computer data storage space are needed to store the entire genome. This includes nucleotide sequence data only and does not include data annotations and other information that can be associated with sequence data.

The genome of each individual should be considered analogous to the sort of file you sometimes download from a software manufacturer's website in order to update a program on your computer. The file usually comes in the form of a self-extracting zip file. That is the sort of file that you activate, and which once activated unfolds from a compressed kernel into the fully articulated and functional program that you run on your computer. Similarly, that single germinal cell from which the human being develops is a self-extracting information file that expands itself into physical reality, not by assembling ever-larger patterns of ones and zeros; but by assembling molecular components from the environment in which it exists. By doing so the single cell reproduces itself, and then diversifies and specializes its copies until each structure of the mature human is produced. DNA has been shown to be capable of determining specific protein structure in the body; but it has never been shown to carry determinants of overall form and function. Theories of formative causation provide plausible explanations for such whole system architecture. The combination of the molecular model of control represented by DNA, and the energetic model of morphogenic fields of formative causation together produce a comprehensive model analogous to the way that the materials that make up a house and the blueprint of its design together account for all properties of the finished structure.

The physical body, as it develops and during its mature life, operates according to data processing rules implicit in the herited genetic chemical and morphogenic field characteristics of the individual. The nervous system is a primary agent by which

Are There Absolute Limits in What Energetic Medicine Can Accomplish?

There are limitations that exist, and which define the range of possibilities of function for the organism. Within this range, optimal health can be expected as long as there are no factors that compromise the expression of data contained in the DNA as represented by the structure and function of control tissues such as the nervous system. Outside this range of possibilities is function that will never be part of a genetically un-enhanced human being. We will never sprout wings and fly, and we will never photosynthesize our energy requirements. Within this range of possibilities of normal function, we may be confronted by factors that interrupt the normal expression of control data. The result of such interruption is illness of one degree or another. These possibilities include the influences of infectious agents, allergens, data processing failures within the sensory/motor control system, corruption of data storage within the central nervous system, mutation induced corruption within the data storage chemical such as RNA or DNA, and the introduction of inhibitory, or excitatory exogenous analogs of endocrine hormones. Any of these factors are capable of compromising the otherwise proper execution of physiological controls in the body resulting in disease. There are other factors which are obviously capable of compromising the health of the individual; but these particular factors which compromise the expression of normal controls in the body are responsible for an enormous percentage of human illness. These are the factors that are within the realm of adverse conditions that can be addressed by NeuroModulation Technique.

How Can the Body's Control System be Addressed?

NeuroModulation Technique (NMT) takes the position that the patient's autonomic control system is directly accessible through the use of carefully applied muscle response testing, or MRT. MRT opens a window through which the status of the autonomic regulatory system can be accurately, and completely assessed. MRT is not used because it is the exclusive method by which ACS responses can be registered. It is used because it is a clinically friendly tool in the hands of a practitioner competent in its use, and because no special instrumentation is required to perform the evaluation. Investigations are now underway to assess the possibility of using sophisticated electronic instrumentation based on galvanic skin response, or scalar wave transmission as an indicator of ACS response. This is not considered as a replacement for MRT; but simply as a possible enhancement of our procedures, supplementary to MRT. It may also be possible that the few practitioners who have difficulty developing facility with MRT may find such instrumentation is a more reliable tool of investigation for them.

NeuroModulation Technique sees the human nervous system very literally like a "bio-computer" whose software can be debugged instantaneously, and with great accuracy. The degree to which these propositions are true is the degree to which NMT can restore the patient's health to a perfect manifestation of that genetic blueprint from which spring all life and health. It is my intention in presenting NMT to document with a reasonable degree of certainty that these propositions are valid and supportable. NMT is a triumph of empiricism. There are many forms of energetic medicine for which it is extremely difficult to show any reasonable degree of proof. The chief reason for this is that in many of these methods the effect of treatment is produced gradually over time. This being the case, it is very difficult to

isolate what specific feature of that energetic healing method, or other intervening experience in the patient's life is responsible for any observed change in health.

The first applications of NMT were developed for the treatment of neuromusculoskeletal conditions in which pain and contracture of soft tissues was the chief feature. These sorts of conditions make for an excellent laboratory for proving the propositions upon which NMT is based. With NMT, we can take virtually any condition characterized by pain and muscle spasm, and modify those symptoms on a real-time basis; yet without the application of any physical modalities to the area of complaint. Our first demonstrations of the NMT protocols in the seminar setting will therefore be in conditions characterized by pain, spasm, and loss of range of motion. Once we have established that NMT protocol can indeed access, assess, and modulate, we will proceed to demonstrate the application of NMT principles through a full range of conditions and diseases that can be healed through the restoration of optimal autonomic regulation.

Early Attempts to Restore Normal Autonomic Control

It would be of value to consider the history over the last century, or two of man's attempts to find the key to restoring normal autonomic regulation. The nineteenth century witnessed the development of homeopathy by Dr. Samuel Hahnemann, the development of osteopathy by Dr. Andrew Still, and the development of chiropractic by Dr. D.D. Palmer. It was the goal of homeopathy to imprint samples of water with the energetic signature of a substance that when introduced to the body in significant quantity produces the same symptoms as those that the patient has presented with. It is the theory of homeopathy that when this preparation has been so diluted there is in all mathematical probability not a single molecule of the substance whose energetic signature was imprinted upon it. Furthermore, it is the

position of homeopathy that the ingestion of this very dilute preparation will trigger the body to stop the illness behavior that resulted in the symptom for which the homeopathic remedy was intended.

It was the position of Dr. Still that illness was the result of diminished circulation caused by dysrelationship of various osseous articulations. His solution was to perform manipulations of the joints and soft tissues. Eventually, osteopathy suffered from a failure to progressively develop its therapeutic philosophy. For a time, osteopathy lost the vision of its founder, and despaired over ever finding the key to restoring normal autonomic function. It became blended with conventional allopathic medicine to the point that they have been indistinguishable. In fairness to the profession, osteopathic pioneers like John Upledger, D.O. and others have broken new ground in alternative medicine with such developments as muscle energy work, and Craniosacral Technique. Such innovations once again distinguish the contributions of osteopathy.

Dr. D.D. Palmer is said to have begun the science of chiropractic with the observation that a displaced thoracic vertebra seemed to have a correlation with loss of hearing in a man named Harvey Lillard. Palmer went on to develop the position that the chief regulatory system of the body was the nervous system, and that this system was charged with the responsibility of expressing what he referred to as "innate intelligence" that designed the body and drove its processes. This was over 100 years ago. There is no science that stands by the tenets it adhered to over a century ago and chiropractic is no exception. Progress in natural science in the past century has described much that was unknown in Palmer's time. Though the explanation must now be different, the conclusion that health proceeds through the

expression of a plan, or information-processing program, via the nervous system appears entirely supportable today.

Shifting Scientific Paradigms Influence Clinical Perspective

According to Thomas S. Kuhn in his book, *The Structure Of Scientific Revolutions*, republished in 1996, "Close historical investigation of a given specialty at a given time discloses a set of recurrent, and quasi standard illustrations of various theories in their conceptual, observational, and instrumental applications. These are the community's paradigms, revealed in its text books, lectures and laboratory exercises." Much new information and discovery has occurred over the past century. Kuhn describes in his book that such new discovery drives the formation of new paradigms. One hundred years ago Watson and Crick were still some years away from agitating their first test tube. With the gift of hindsight, conventional thought now says that the blueprint of life is the DNA we inherit at the moment of conception. Certainly, there is nothing more innate to our essence than that DNA of our first cell. It is no inaccuracy to say that DNA represents the intelligence from which we were created. For some, it may reflect the physical manifestation of a supreme intelligence of a creator that is a part of us. DNA is widely accepted to be the storage medium of the biological computer system that expresses itself through the construction and animation of the human body. Paradigms are made to be broken, to mangle a familiar platitude. Later in our presentation we will see that the present day paradigm of DNA determinism is incomplete, and that far more subtle and interesting levels of control are involved.

It was Dr. Palmer's contention that the expression of regulatory forces throughout the body was mediated by the nervous system, and was subject to compromise at the intravertebral foramen due to disturbance in the physiology of spinal

articulations. Palmer referred to the compromise in expression of regulation when it occurred at the level of the intravertebral foramen as "quantity interference". Palmer also described another type of compromise in the expression of regulation of the body that did not occur at this spinal level. He referred to this as "quality interference" and said that this interference occurred within the central nervous system prior to the branching into peripheral nerves. This, in part, is the territory staked out by NeuroModulation Technique - the correction of these subluxations of "quality interference" to the unadulterated expression of the human nervous system.

Over the many years that have passed since chiropractic began in 1895, many different approaches have been developed by chiropractors to correct the dysregulation of the nervous system. A tremendous richness of therapeutic approaches has unfolded, developed by doctors in the field driven by the yearning to find that perfect key to restoring the full, complete, and accurate expression of our blueprint of life.

The Dawn of Informational Medicine

The second half of the first century of chiropractic saw the introduction of techniques that were not primarily mechanical in nature. This was a time when science and technology gave new perspective to old assumptions. This was a time when it was recognized that the chiropractic manipulation really wasn't taking bones that were out of place, and putting them back where they belong. It was recognized that the process of performing vertebral manipulation involved applying physical forces to the body that activated various neurological sensors and by reflex, caused a change in the motor output of the nervous system thus correcting functional disturbance. This often resulted in improvement in physiology, particularly the physiology of posture, and motion of the spine. Many times it

occurred at the level of the intravertebral foramen as "quantity interference". Palmer also described another type of compromise in the expression of regulation of the body that did not occur at this spinal level. He referred to this as "quality interference" and said that this interference occurred within the central nervous system prior to the branching into peripheral nerves. This, in part, is the territory staked out by NeuroModulation Technique - the correction of these subluxations of "quality interference" to the unadulterated expression of the human nervous system.

resulted in improvement of visceral function. Many of the techniques developed in the first half of the first century of chiropractic took an interest in the creation of efficient ways of producing osseous manipulation; but many of the techniques developed in the second half of the first century of chiropractic took an interest in developing systems that were more purely neurologically reflexive in nature.

*Neuromodulation Technique Is Entirely Neurologically Reflexive In Nature, And
Seeks To Create Specific Sensory Input For The Purpose Of Producing A More
Perfect Motor Output To Regulate The Body.*

To the extent that this is true, NeuroModulation Technique may be considered within the realm of energetic medicine, and more correctly in the realm of informational medicine.

*Neuromodulation Technique Is Best Understood Within The Context Of The
Energetic Techniques That Developed In The Chiropractic Profession Over The Past
Half-Century.*

The Point-Based Techniques

The energetic techniques in chiropractic draw upon two of the earlier methods of energetic treatment, acupuncture and homeopathy. These methods, when filtered through the grid of chiropractic perspective, resulted in what may be termed "point based" techniques, "vial based" techniques, and techniques that utilized both approaches. Among the earliest of "point based" techniques that involved the use of particular points on the body wall that were thought to be correlated to visceral function was known as the Bennett reflexes. Various other systems of "point based" treatment protocols developed within the chiropractic profession including systems

of treatment such as Touch for Health, the Versendaal method, and a number of types of reflexology. The Versendaal method utilizes a vast system of points representing various tissues, organs, nutrients, and processes. Other methods such as Clinical Kinesiology from Allen Beardall, D.C. utilize enormous numbers of hand positions known as mudras, or hand modes.

The Inherent Weakness Of The "Point Based" Techniques Is That They Require Predisposition Of The Meaning Of Each Point That Is Chosen As A Metaphorical Representation Of Some Body Process, Or Structure. This Severely Limits Corrective Communications With The ACS Of The Patient As Compared To The Precisely Crafted Semantic Structure Of Neuromodulation Technique.

NMT asserts that there's nothing inherent in any of these hand positions, or body points that makes them of any therapeutic value. The concepts of body points, mudras, and gestures have meaning only to the extent that these things represent metaphorical mental placeholders for the doctor to establish intent.

Establishing Intent In Energetic/Informational Medicine Is Essential, And Anything That Helps The Doctor Do This May Be Considered Beneficial.

There is some danger in forgetting that this is the case and simply assuming that such metaphors are literally real. Such metaphors are constituted from the presumptions of the people who developed the techniques that utilize these concepts and are not inherent in the anatomy of human beings. These presumptions get transferred to the practitioners who use the method in their training, often just that way – as presumptions that are not even acknowledged, and are generally assimilated without question, and used clinically without awareness.

George Goodheart, D.C. and Muscle Response Testing

George Goodheart, D.C., a second-generation chiropractor from Michigan, was the subject of an April 16, 2001 *Time* magazine article featuring Time's 100 great innovators in medicine. Forty years previously, in 1964 Dr. Goodheart published an article describing how inhibited muscles could be restored to normal function through certain procedures designed to stimulate particular sensory end organs in an effort to correct neurological control features within the muscle and to provoke a more appropriate motor output from the central nervous system. Dr. Goodheart found that muscles could be monitored and that the response of test muscles to particular clinical procedures could reveal information about a broad range of body function. In effect, he found that these specialized clinical applications that grew out of knowledge of classical kinesiology – the study of body motion – could serve as a real time window into broad categories of body function. Goodheart went on to train many chiropractors and other health professionals in what he called Applied Kinesiology (AK). Among the select group of people who became "charter diplomates" in AK were chiropractors like Victor Frank, D.C., John Thie, D.C., and others who took muscle response testing in new directions often starting their own schools of study which now range far and wide and are practiced by virtually every type of health care professional, and many lay people interested in improving the function of the body. There are almost no energetic techniques that do not owe some measure of thanks to Dr. Goodheart for his ingenuity and creativity. My own exposure to AK was at the hands of L.E. "Jack" Rarey who was a longtime family friend, and had treated me when I was in the early grades of primary school. Jack nourished my interest in chiropractic and I had the privilege of practicing with him for several years before beginning my own practice.

The Vial-Based Techniques

"Vial-based" techniques developed out of the notions of homeopathy, specifically the idea that water can be charged with an energetic imprint that it may hold for a very long time. Another influence on the development of vial-based techniques was the work of Dr. Raymond Rife. Rife may be among the best known doctors from the 1930's, 40's, and 50's who pioneered a field of study known as radionic medicine. This esoteric area of study involved the production of electronic apparatus that were thought to be able to conduct and transmit electromagnetic energy in frequencies that were believed to capture something of the essence of the real substance they were made to represent. In performing vial-based methods, these radionic instruments were used to imprint a carrier substance held in a small glass vial. The substance might be water, or combination of water and alcohol. There developed from this point forward in time a small industry based on the production and sale of such radionic instruments to healthcare professionals for uses that included the production of radionically prepared test vials. There was considerable pressure from federal regulatory agencies to suppress this industry as an example of medical quackery. Still the industry thrives, not in small part because there are many healthcare providers around the world who have found that vial-based techniques of energetic medicine are sometimes effective - often when conventional medical procedures are least effective.

It is the position of NMT that until such time as a machine is produced which can read, and display the energetic signature of a previously manufactured radionically charged vial that no confidence should be given to the proposition that such vials actually do carry and radiate an energetic representation of anything besides the water, glass, and plastic that physically comprise the vial. It is even doubtful that an energetic signature of these actual substances is perceivable to a patient. I will note

here that I have made numerous requests to manufacturers of these various radionic machines to demonstrate any instrument that can read the energetic charge from a prepared vial. No such machine has ever been produced. The paradox of this is that the same equipment manufacturers produce machines that they market for the purpose of duplicating vials. In order for a machine to duplicate a vial several things must be true. The machine must be able to sense the energetic signature that has been imprinted into the subject vial to be duplicated. The machine must then translate that energetic signature into either a digital, or analog electronic representation. The machine must then amplify, and transduce this signal in such a way as to energetically imprint the material that fills the target vial. If this is the case, and a specific and unique electronic signal has been sensed from the subject vial, it should be a very simple task to associate this unique electronic signal with the library of such signals for common substances. The name of this subject vial could easily be displayed on a screen, or readout. No one has yet done this, and the most likely reason for this is that it cannot be done - as we should expect if the vials carry no perceivable energetic signature.

The Clinical Phenomena That Are Observed To Occur With Vial-Based Treatment Techniques Happen For Reasons Other Than The Transmission Of An Energetic Signature From The "Radionically Charged Vial" To The Patient.

Can a Procedure Work if It Is Based On Nonsense
It should be understood that NMT does not take the position that these energetic techniques based on the use of radionically charged vials do not result in improvement of patients' health. It is the position of NMT that the founders of these techniques made a clinical observation that they could perform an operation that resulted in an improvement in the patient's symptoms; but that they

misapprehended what they had observed. As a result of this mis-take they fabricated systems of sometimes arbitrary treatment procedures, and a philosophy based on conclusions that are not supportable by any current means of evaluation. Repeated double blind experiments in our offices have failed to demonstrate the often repeated contention that radionically produced vials are able to transmit information perceptible to the patient. Further, we will demonstrate that it is not necessary for these radionically produced vials to transmit any information to the patient in order to explain the results obtained by the protocols of vial-based treatment methods. An adequate explanation of the observed efficacy of vial-based techniques may be provided by the simple explanation that these vials serve as nothing more than a metaphor, or mental placeholder for the operator performing such treatment.

The Observed Clinical Phenomena Interpreted To Be Evidence That Radionically Prepared Vials Transmit Information To The Patient Are More Elegantly Explained By The Explanation That The Vials Serve As A Metaphorical Point Of Focus For The Practitioner To Clearly Frame Intent Which Is Then Transmitted To The Patient Energetically Through "Other Than Conscious" To "Other Than Conscious" Communication. (See Occam's Razor)

I will add here the results of clinical experiments cited above because during most of our seminars the interest of participants is to proceed with other material, and not take the time to view our video of the experiments. Two trials were done in my offices on different dates using different personnel. In each case, the experiment involved using four radionically prepared test vials. There was a test subject familiar with MRT, and a practitioner experienced with MRT. The vials were labeled. The practitioner did 40 trials. The first 20 trials involved the practitioner

randomly selecting one of the four vials, with knowledge of the labeled contents, and placing this in the hand of the patient who had no knowledge of the contents. The practitioner would MRT at each trial to determine the vial identification verbally specifying each of the four possible vials at each trial. In this half of the experiment the patient correctly identified the vial 100% of the time. The second 20 trials were done the same way, except the practitioner had no knowledge of the contents of the vials. I made a single wrap sheath of white paper with a random identifier number for each vial and didn't look as I inserted each into a sheath. The doctor was prevented learning from the test subject's choices by having to select a vial from the bottom of a paper bag, hold it in his fist, and transfer it to the test subject without either knowing even the random number labeled on the sheath. When the vials were unblinded the test subject correctly identified 25% of the time, exactly what would be expected in a perfectly random guess of identification of four possibilities.

NMT Also Asserts That What Are Referred To By Various Treatment Techniques As Alarm Points, Reflex Points, Organ Points, And Meridian Alarm Points Are Also Simply Metaphorical Concepts Held In The Mind Of The Clinician, And Transmitted On An OTC/OTC Basis To The Patient During The Process Of Performing The Various Steps Of Clinical Evaluation That Comprise The Technique In Question.

This explains why the developers of these various energetic techniques may use representational points that vary greatly from one energetic technique to another. In the study of NAET we find that the organ alarm points for the liver and the gallbladder, as well as for the pancreas and spleen, are the exact opposite in position of those points representation in the treatment systems known as TBM, and NET. It

is widely observed that the systems of treatment are effective to one degree or another. This supports the assertion that these "points" are nothing more than metaphorical mental placeholders for the practitioner and serve as a focal point for the practitioner's intent. It should be mentioned here that there are point-based systems of treatment, specifically classical acupuncture, for which objective investigation has established a relationship between particular locations on the body wall, and particular types of body function. Classical acupuncture appears to be the exception to the other point-based healing methods. Still, there are acupuncturists who feel that the point-based system of circuits is itself a metaphor for some energetic control system of the body, and a recent article in "The Skeptical Enquirer", Journal of PSICOPs, suggests a model of acupuncture that is frequency-based and solely related to energetic fields.

Pioneers of Energetic Medicine

This author has studied with the innovative pioneers of energetic medicine discussed below – often over a period of many years dating back to the early 1980's. These people developed new insights into healing and produced methods that have helped thousands of people. At the time these methods were developed, they were the state-of-the-art in energetic medicine. One method will be seen to reflect the understanding of earlier methods and from that departure point move the process of understanding forward. My studies have again moved the process of understanding forward and resulted in the creation of NeuroModulation Technique. The analysis and critique I offer of these methods must be understood in the spirit it is offered. If these methods are truer and more valid than the model of energetic medicine I propose in NMT, then I should step back and remain silent. If not, then the differences that make one model of healing more correct and hence more effective should be clearly stated.

If I Assert That NMT Is A More Elegant, Powerful, And Correct Model, Then I Must Demonstrate By My Critique The Weaknesses Of These Previous Models.

I offer the comments that follow with appreciation to these teachers who generously shared their knowledge with me. These are courageous men and women who dared to enter a new and challenging field of study – one that ran contrary to accepted dogma of health sciences. These are people I hold in high esteem, many of whom I consider friends. We who consider ourselves professionals in the field of energetic medicine are scientists, and we must do what science requires of us. When we see error in scientific models of our world we must criticize what does not stand the test of reason and experiment. I have developed a model of energetic medicine that explains the weaknesses of previous models. The NMT model is one that marries accepted principles of western science to the traditions of energetic medicine.

NMT Is Not Just A New Technique; It May Be Seen As An Entirely New Science, The Principles Of Which May Go Far Beyond Health Care.

NMT offers a nearly limitless framework, grounded in rational principles, that I believe will move the science of energetic medicine to new levels. Methods grounded on a foundation of misperception and cloudy thinking have absolute limits to their development. Many of the methods we will discuss have remained virtually unchanged for over a decade. Progress requires leaving behind old notions that no longer stand the test of scrutiny. The following critique of earlier methods is offered with admiration, and respect to those whose contributions preceded my own.

Victor Frank, D.C. and Total Body Modification

My personal journey through the study of chiropractic began at Western States Chiropractic College. I was, in 1979, a summa cum laude graduate, and valedictorian of the largest class ever to matriculate that institution. My interest in school and in postgraduate studies in those years were forms of treatment of purely mechano-physiologic nature. At that time I looked at the various forms of energetic medicine I encountered as nonsensical. During the early years of my practice, I observed friends and colleagues in the profession who had outstanding results with patients suffering from problems my mechano-physiologic methods were least successful with. The result of this observation over 20 years ago has lead me on a winding path of study with teachers of energetic methods of treatment from all over the world.

Among my earliest study in energetic medicine was the work of Victor Frank D.C., and his Total Body Modification (TBM). This was a method that was based on both the use of radionically prepared vials, and body points - most of which represented the various organs and systems of the body. The teaching of TBM consisted of many separate protocols of procedure specific to various conditions, or complaints. The basic idea of TBM was that a symptom was produced when there was an energetic disharmony in the body that resulted in a compromise of the normal regulatory systems. A radionically charged vial would be selected through muscle response testing in which the presence of the vial in the patient's hand caused a reversal of a previously strong/weak test muscle. The operator would then continue muscle response testing until an alarm point was determined which countered the previously described weakness, thus establishing a relationship between the vial-produced weakness, and the organ point. Once this relationship had been established, the patient would hold the active organ point, and the doctor would

perform tapping along the spine according to a selection of spinal levels thought to be associated with that particular alarm point in an effort to establish balanced neurological function. With this general rule established, a vast array of separate protocols for different conditions was created. If there was dysfunction in an organ such as the liver, the doctor might find that a vial representing alcohol, or hepatitis B virus countered the weakness generated when a contact has held over the liver. Vials representing infectious organisms were often used in the TBM protocols.

Each organ point had a corresponding sequence of vertebra levels that were to be adjusted with a chiropractic mallet that was performed to affect the process of harmonization. If the patient were allergic to a particular substance, that relationship would be shown by a weak muscle test when the patient held the vial, and then an organ point would be found which countered the weakness, suggesting an energetic link. The treatment process had many steps that would involve testing for, and adding vials to the patient's hand. These vials might represent immunoglobulins, blood, histamine, or other substances. Each time a new vial was added, the process of finding an active alarm point, and treating vertebra sequences would be repeated until all steps of the protocol were completed.

In TBM, there was actually a third method of representing some feature of the treatment - hand gestures. There were certain gestures of the doctor's hands across the patient's body that were used to represent the relationship between various organs, or the direction of some process that was to be part of the treatment protocol.

Needless to say, TBM was a complicated technique involving alarm points, radionically prepared vials, and hand gestures. All of these aspects of treatment in

TBM from our point of view in NMT were simply a metaphorical way of communicating corrective information, of one degree of accuracy or another, to the patient on an "other than conscious" to "other than conscious" level (OTC/OTC).

If Corrective Information Can Be Transmitted To The Patient In An Indirect And Metaphorically Representational Manner, Would It Not Be More Effective To Find A Direct Way To Precisely Introduce Corrective Information To The Patient's Control Systems?

The teaching of TBM emphasized the rote learning of these protocols, and spent little time in the discussion of physiology of disease processes. The intent of practitioner was therefore incomplete with respect to the instruction he/she was attempting to deliver to the disorganized nervous system of the patient on an OTC/OTC level. I believe that this is one of the factors responsible for the inconsistency of success in applying TBM treatment protocols and that this criticism applies to virtually all other energetic techniques besides NeuroModulation Technique.

The fact that Dr. Frank's TBM protocols were less than perfect does little to diminish the importance of his contribution, which should be valued at the same level as the work of the more widely known Dr. George Goodheart. Dr. Frank is truly the grandfather of most of the modern energetic medicine techniques which grow out of his pioneering work in developing TBM.

Devi Nambudripad, M.D., D.C., L.Ac. and NAET
In the 1980's, a chiropractor/acupuncturist named Devi Nambudripad developed a system of treatment for allergies that she named Nambudripad Allergy Elimination

Technique (NAET). If you were to see one of Dr. Frank's TBM allergy treatments performed alongside an NAET allergy treatment you would find them conspicuously close to one another in execution. NAET treatment would be seen to be simpler, with many of the steps Dr. Frank included in his method eliminated. Each individual treatment would otherwise be seen to be very similar, indeed. One difference in the teaching of NAET as opposed to TBM was that, at least in the beginning of treatment of a particular case, there was a reasonably clear step-by-step protocol by which particular substances should be evaluated to see if they were functioning as allergens responsible for the patient's complaints. There was a group of ten basic substances representing the major nutrients, and more recently the introduction of a file called the BBB file, which was said to represent the organ systems of the body. Beyond this, the pathway by which to progress a patient through a course of treatment seemed much less clear. The practitioner was confronted with a seemingly endless catalogue of individual "allergen" substances, or at least what are purported to be energetic representations. The challenge was to search through that catalogue; more or less by trial and error, in hopes of finding the one which when treated would finally resolve the patient's complaints.

It Is Not Unusual That A Patient With A Complex Set Of Allergy Responses Might Require Many Dozens Of NAET Treatments Over A Course Of Years Of Treatment To Reach A Reasonable Level Of Therapeutic Success.

Cases in which the relationship of the complaint to an actual allergic response to some substance was less clear were even more confusing to manage. Not everything is an "allergy".

If There Is Little Informational Content To The Technique Protocol, There Will Be Little Corrective Information Transferred To The Patient In Treatment.

Ambiguity in Assessment and Treatment Compromises Results

In both the practice of TBM and NAET it is our position that failure, or at least compromised success, results from the degree to which the attempt to input corrective information is ineffective, or confusing to the nervous system of the patient. The reason for this is that it is not clearly understood by the founders of TBM and NAET exactly what operational changes they are requesting of the autonomic control system of the patient they are treating.

It May Also Be That The Tendency For Temporary Adverse Responses To Treatment With These Methods Also Results From The Degree To Which The "Corrective Information" These Methods Offer Is Confusing, Incomplete, Or Unclear To The Patient's Nervous System – Pushing An Already Dysregulated Control System Further Out Of Balance.

In TBM or NAET treatment, we would place a vial in the hand of the patient. Following this, we would test an indicator muscle for a change in strength, and then stimulate the spine with vertebral tapping. What we have done is to input a presumed stimulus, the presence of the vial, and attempted to observe patient response by way of a change in test muscle strength. With regard to specificity of our investigation, we must ask ourselves what question we have posed to the autonomic control system of the patient, and what corrective information we have uploaded to the patient. Clearly, it is not obvious from the teaching of these methods just what constitutes these informational factors. The vial itself provides no information.

NMT Asserts That When These Other Methods Are Performed There Is A Question Inherent In The Performance Of The Protocol, Unspoken And Usually Unrealized By The Practitioner, But Which Is Communicated To The Patient In An Unspoken OTC/OTC Communication.

The unspoken question to the patient is, "Is the substance you are holding producing an allergic response?" in the case of NAET; or "Is the substance you are holding producing an energetic disharmony?" in the case of TBM. These questions are inherent in the presumptions of the training of the practitioners.

When The Corrective Portion Of Any Energetic Protocol Is Performed, A Command With These Methods Also Results From The Degree To Which The "Corrective Information" These Methods Offer Is Confusing, Incomplete, Or Unclear To The Patient By OTC/OTC Communication.

That command is that the patient's control mechanisms should no longer respond to the presence of the substance treated as if it were a harmful, or disruptive influence.

Scott Walker, D.C. and Neuro-Emotional Technique
The teaching of TBM involves many different course levels. The most advanced course level is the Questor, or Research level of training where various practitioners of TBM present original work. During one of the research level trainings in the 1980's a chiropractor named Scott Walker, D.C. presented a protocol in which emotional/psychological issues can be addressed. Dr. Walker discussed this with Dr. Frank, and they agreed that this work was related to, but fundamentally different from TBM. As a result of that conversation, Dr. Walker developed his own treatment protocols which he called NeuroEmotional Technique (NET). In

performing NET Dr. Walker would find a negatively charged emotional experience in the patient's memory, and would have the patient hold the memory of that event in their attention while treatment similar to that in TBM was performed. The patient would hold a related organ reflex point while a sequence of vertebra was stimulated with tapping from a chiropractic mallet. In this sense, Dr. Walker was using the memory of the negatively charged emotional experience in the same way that Dr. Frank was using the energetically charged vials. This difference was necessitated by the fact that if the patient's complaint was caused by the way in which they were processing a stressful experience in their history, it would be necessary to determine the exact nature of that event, and through the protocol permit the patient to reprocess their response to the event more constructively. There would not be an opportunity to produce a series of vials that would cover every eventuality in this regard. For this reason, Dr. Walker developed a system of investigation that was essentially a binary decision tree in which the patient would be semantically confronted with various categorical questions, and the yes/no response to each of these would lead to a subsequent question until something known as the "snapshot" had been determined. This snapshot constituted the target event producing a disturbance for the patient. In more recent years, Dr. Walker has changed his system of investigation, and now looks for more generic categories comprising disturbing experience to the patient rather than targeting very specific events. It appears that, at least in part, the reason for this was the understanding that particular events divined by the NET MRT process were not necessarily literal historically. They might be "emotionally real", as opposed to "historically real".

The Contribution That Dr. Walker Introduced In The Investigational Portion Of His Protocol, The Use Of Semantic Challenges To The Patient As Opposed To

Challenging The Patient With A Vial, Reflex Point Contact, Or Gesture Is A Very Important One.

It introduced specificity of investigational information content to the process of assessing the patient, and moved in a direction away from the use of metaphorical representation. It appears that this change was a matter of necessity caused by the fact that Dr. Walker wanted to investigate the relationship of emotional/psychological experience on the patient's health, and the limitations inherent in the concept of using vials to evaluate and treat problems of this nature. Less emphasis was placed on the importance of the specificity of communication with the patient's autonomic control system, or that such communication could occur on as literal a level as conscious verbal conversation. The evidence that this is so is the treatment portion of NET. In this portion of treatment, which is referred to in NET as poising the patient, there is no specific corrective semantic input. The patient simply holds the "snapshot", or the more generic category of disturbing emotional experience in their attention while an organ reflex point is held, and specific spinal levels are stimulated with a chiropractic mallet.

Medically Unsupportable Devices

Perhaps it is a self-esteem issue for people in the healing arts to have a weakness for medical gadgets. In NMT, we recognize that healing comes from within and that the NMT practitioner facilitates that process by assessing faults in the body's control mechanisms and providing a corrective algorithm to resolve those faults. It is the OTC/OTC communication between the practitioner and patient that transmits corrective content. Once again, that which is unnecessary to explain a phenomenon must be discarded according to the principles of Occam's Razor, discussed in supplemental readings in your seminar notes. Unproven medical

devices appear to offer little benefit to the NMT practitioner. Conversely, there may be significant risk in their use. Professional licensing, and healthcare regulatory agencies expect that practitioners who use medical devices in their practices use devices that meet certain standards of efficacy. NMT offers powerful tools to promote healing and avoids stepping into the purview of regulatory agencies whose mandate is the oversight of medical devices and materials? We use the Arthrostim instrument in our treatment protocol, not only because it is very well crafted and highly reliable in heavy service, convenient to use, considerate of treatment ergonomics; but because it is an FDA approved medical device.

Why It Was Necessary to Develop NeuroModulation Technique

Alternative Medicine is no longer the redheaded stepchild of the health care system. I spoke with alternative medicine authority David Eisenberg, M.D., and Director of the Division for Research & Education in Complementary & Integrative Medical Therapies Harvard Osher Institute, Harvard Medical School in 2001 when he was in Portland, OR. He told me the number of visits to alternative doctors surpassed those to MD's in 1997, exhibiting a sharp increase in utilization from 1990 when visits to alternative practitioners were far fewer than those to MD's. Now that gap is even wider, and it is still growing. You can't take big business away from big business without expecting to be attacked. We in alternative care should be prepared for that.

How Was NeuroModulation Technique Developed?

After twenty years of effort and frustration in my attempt to arrive at an understanding of the common thread that links all energetic medicine methods I had an insight into what it was that these previous energetic methods were inadvertently and tangentially tapping into. That insight permitted me to begin with a solid conceptual foundation from which I was able to design a framework for NMT informed by western science, yet drawing on the nearly limitless capacity for healing inherent in all living beings.

Neuromodulation Technique Is A Proprietary System Of Health Care Treatment Based Upon A Method Of Assessing And Assessing The Autonomic Control System Of The Patient Through Muscle Response Testing Utilizing Verbal And/Or Non-Verbal Semantic Questions And Statements.

Performance of that autonomic control system is modulated with a combination of verbal and/or non-verbal corrective commands and statements. This process is

Could you defend such practices if challenged? Why take the risk when the radionically prepared vials, and those diagnostic and therapeutic devices made of Radio Shack parts that we are marketed are unnecessary?

I want to treat with methods grounded in science and rational thought; but without giving up the kind of care that restores the body's innate health in a natural way. NMT permits the doctor to do this with efficacy never before available. NMT affords the ability to practice energetic medicine without the risks associated with introducing unproven medical materials, or devices that open the door to the FDA jurisdictional issues.

further augmented and reinforced with percussive, or other stimulation of vertebral segments, specific breathing patterns, and other sensory stimuli. It is based upon widely accepted neurophysiological models. There are no vials, special reflex points, or potions used. We approach very literally the proposition that the closest analogy to the human nervous system is the computer. We use a unique form of muscle response testing to access, and assess the autonomic control system, and to modulate the performance of autonomic control functions with specific semantic reprogramming and debugging scripts. The NMT method is based on generally recognized principles of neurophysiology, physiology, psychology, linguistics, and anatomy and constitutes a unique and proprietary system of health care protected by applicable laws of United States patent, copyright, and trademark laws.

What Can be Treated with NeuroModulation Technique

NeuroModulation Technique often produces instantaneous, and profound results in cases of virtually all forms of illness that are provoked by faults in the function of the autonomic control system. This list includes all allergies, chronic degenerative diseases such as all forms of arthritis; multiple sclerosis and other demyelinating diseases; Crohn's disease, IBS, and gastric reflux disease; infectious disease processes; all autoimmune diseases; acute and chronic musculoskeletal conditions; addictions, emotional, psychological and sensory/motor neurological disturbances. With NMT you will find that you have a whole new way of looking at the patient's condition.

Even Classic Orthopedic And Neurological Signs And Tests Take On A Whole New Meaning When You See These Tests Turn From Positive At First Examination Of The Patient To Negative At The End Of Treatment - Yet The Patient Has Not Been Manipulated, Or Subjected To Any Form Of Physical Therapy.

Pain disappears instantly, spasm melts away, and range of motion releases as completely and profoundly as if the patient had been through weeks of therapy and rest. The patient's autonomic control system has simply been accessed and modulated in the direction of normal function. NMT will change the way you look at illness. For many conditions illness now becomes a problem of data processing of the bio-computer. It is subject to real time correction as you use NMT to reprogram and debug that bio-computer, just as literally as you might the computer that sits on your desktop.

2. NMT: Muscle Response Testing

Why Test a Muscle?

Muscle response testing (MRT) is the method by which we access the autonomic control system of the patient. In NMT we view the muscle response test as a form of communication with the patient's autonomic control system. It would be more convenient to have two way verbal communications with the patient to access, and assess their autonomic control system function. The reason that we cannot do this is that the autonomic control system does not have control over the function of speech; only the conscious/voluntary nervous system is able to control speech. The conscious mind, regardless of the level of education, or intelligence of the patient is completely ignorant to vegetative functions that are controlled by the autonomic control system. So, an attempt to ascertain the information we need to treat the patient through a two-way verbal conversation would be useless. Muscle response testing affords the opportunity of communication with the autonomic control system, but that communication is limited on the patient's side to the binary yes/no response we attribute to the fluctuations in strength noted in the selected test muscle. This method of communication still affords great opportunity for an in depth assessment of the status of the patient; but it depends on the precision and clarity of the query/command statements that are directed at the patient. NMT is uniquely powerful in the structure of our treatment protocols in this regard.

What Does a Muscle Test Test?

In other methods of muscle response testing, various interpretations of the nature of the test are made. Some of these schools of thought indicate that muscle response testing has something to do with an exchange of energy between the patient and the

operator. Elaborate methods of point-based, and gesture-based procedures are used to establish the testability of the patient; or to create testability in an otherwise untestable patient. With NMT, we take the position that these procedures fall into the same category along with radionically prepared vials and organ reflex points, thus, are simply a metaphor substituting for direct communication with the patient. In all cases, metaphor is a second choice to direct, unambiguous communication. Whether the operator uses the "groove and twist", or uses the alternation of nail/pad contact over the glabella, or some other procedure intended to induce responsiveness from the patient the real effect of such procedure is the product of the unspoken, and unrealized OTC/OTC communication that occurs between the operator and patient at the moment the procedure is performed. The content of that communication is the understanding the operator was given as to the meaning of the gesture in their training. There is nothing inherent to the gestures, or contact points themselves that communicates meaning to the patient. Once it is understood that this is what is happening these gestures can be dispensed with, and the operator can simply ask the patient's autonomic control system at a verbal, or unspoken level if it is all right to have communication at that time.

OTC/OTC Communication

In the NMT treatment model we use clinical algorithms (see Glossary). These algorithms are special sets of interrogative statements used to ascertain characteristics of the ACS and corrective commands or directive statements used to inform the ACS of a more correct mode of behavior. These algorithms are referred to in NMT as "pathways" and various sets of interrogative and directive statements make up each of numerous pathways - each of which addresses a particular aspect of function of the body. These pathways are written in the vocabulary and grammar of the language in which NMT is taught. The purpose of the NMT practitioner

bringing to mind and speaking these semantic algorithms might be to directly convey to the ACS of the patient the information inherent in the statement being delivered. I assert that this is not the case. Rather, doing this permits the practitioner to form and shape a mental picture of the meaning of the pathway statement. The accomplished NMT practitioner is adept at projecting this meaning to the patient in an entirely other than conscious (OTC – see Glossary) to other than conscious level. Though the idea that this sort of communication is literally true and a process that is repeatable and reliable may seem an uncomfortable intellectual stretch from culturally accepted precepts, there is clear clinical evidence it is so. NMT practitioners routinely treat patients just weeks, or months old who have no significant learned language skills, as well as patients who do not understand the language of the practitioner, or who are deaf. Clinical results with these patients do not differ from their counterparts who do understand the meaning of the verbal statements of the pathways. This becomes quite clear when treating a condition of pain, or spasm in which clear symptomatic improvement is seen in real time while treating.

Influence of Mental Activity beyond the Confines of the Brain

Gerald Winer from Ohio State University found in his studies of the subject that 89% of college students and over 90% of sixth grade students believed that they could perceive the intent state of others. Rupert Sheldrake delivers a graphic description of this sort of projection of intent beyond physical boundaries of the body. The name of his book on the subject derives from the perception of widely reported in all cultures that people can sense when another person is staring at them intently. From his book, The Sense Of Being Stared At – And Other Aspects Of The Extended Mind:

A metaphor that helps in thinking about the extended mind is provided by one of the simplest forms of animal life, the single-celled amoeba. Amoebas move around by sending out projections into the world around them. These are called pseudopodia, literally meaning "false feet." As in all other complex animals, amoeboid cells are vital for our survival. For example, some of the white blood cells, the macrophages, are amoeboid and send out pseudopodia that engulf bacteria and other foreign bodies just as free-living amoebas in ponds gobble up bacterial by engulfing them. The most extreme examples of amoeboid cells are the nerves. Some nerve cells have enormously elongated pseudopod-like projections, which serve as the nerve fibers that conduct nerve impulses. It is no coincidence that the mind is rooted in networks of nerve cells, with pseudopod-like axons stretching out far beyond the main part of the cell body. The mind in turn is capable of sending out mental pseudopodia into the world beyond the body, and is forming networks of interconnections with other minds.

An aspect of the clinical skill required to perform NMT well is the acquired facility with which the practitioner is able to form and shape a concise and unambiguous mental picture of each step of a clinical pathway and to project that thought image to the patient. This is something that develops more easily for some than for others, just as each of us have different inherent capacities to learn music. Similarly, the development of this skill is directly related to the repetition of practice and the intensity of focus and concentration on the act. NMT has been proven to be clinically effective in many practices around the world.

The newly trained NMT practitioner would do well to focus on aspects of this OTC/OTC communication in the attempt to gain clinical excellence with NMT. Faced with the possibility of a particular case that isn't responding as anticipated

it is more productive to look to the fine points of how the practitioner is applying NMT than to the question of whether NMT works for the condition at hand.

This is important since for some practitioners this skill comes over a period of weeks and even months rather than some simple skill that can be mastered in a matter of hours during a seminar. Maintain awareness when treating that NMT is an elegant and efficient method of communicating with the ACS and that the ACS, given the appropriate directive statements can regain homeostasis. The key factors in performing NMT are careful crafting of the pathway statements and effective delivery of these statements through OTC/OTC intent.

What Problems Can Confuse the MRT Process?

There are several conditions in which the patient may initially be untestable with muscle response testing. The first of these is this situation in which the patient is in a sympathetic dominant state, or simply one in which the conscious mind of the patient will not relinquish enough control to permit the autonomic control system to express a response through a test muscle. This situation may be resolved by having a conversation with the patient in which it is explained that the muscle response test is not a strength test, or contest; but, it is a method by which the operator is attempting to communicate with the autonomic control system in a reflexive manner by assessing changes in the quality of muscle contraction as a response to semantic query/command. The patient should understand that accurate muscle testing requires that the patient realize that if such communication with the autonomic control system is established, the operator will be able to perceive fluctuations in strength of the test muscle in response to the semantic query/commands that will provide guidance to the operator during the course of treatment. Therefore, it is important that the patient use an even level of effort during each trial of the muscle

response testing. If the patient is unclear about this there may be an attempt to recruit accessory muscles when the patient perceives a weakened muscle response to a particular semantic query/command.

By All Means, Take The Time To Explain These Principles Clearly To The Patient At The Outset Of NMT Treatment. You May Save A Great Deal Of Time During The Rest Of The Course Of Treatment, And Achieve Far Better Results By Making Sure The Patient Understands The Role They Play In Successful NMT Treatment.

If this sort of communication is not effective in producing a testable patient, then a surrogate muscle tester should be used. Surrogate testing in this situation invariably produces clear, and consistent responses. The surrogate has no stake in the outcome of the test, and it is unlikely that any issue of conscious override of the muscle during the testing procedure will occur. The practitioner may find that once the surrogate testing procedure has been used once, or twice that the patient "gets it", and is usually testable thereafter without a surrogate.

Are Some Patients Not Testable?

There is a second situation which may occur with some patients at some times, and which may compromise the accuracy of the muscle response tests. This is a situation in which, for whatever reason, the autonomic control system of the patient does not wish to interact with the examiner. There may be some issue of distrust of the examiner, or fear of the information that will be revealed by the examination that interferes with the muscle response test. If this is the situation that is occurring, it is unlikely that the use of a surrogate muscle tester will resolve the problem. This is because the issue here is not one in which the autonomic control system of the patient is not permitted by the conscious mind to express itself through muscle test.

This is an issue in which the examiner is successfully accessing the autonomic control system of the patient; but in which that autonomic control system does not want to engage in communication with the examiner at that time. These cases are rare. When they do occur, such problems may be resolved by having a conversation with the patient that results in putting them at ease with the procedures the examiner intends to use, or putting them at ease with the examiner on a personal level. Sometimes all that is required is to have the patient get up and stretch for a minute, or get a drink of water, or empty their bladder to make them comfortable enough to MRT. Sometimes, it is just necessary to confirm with the patient that it is OK to proceed with the MRT testing. On occasion it may be necessary to simply explain to the patient that the muscle response testing is indicating that they are not testable on this particular day, and that they need to be rescheduled for a different date at which time it is expected that the testing should be successful. There may be rare occasions in which a patient simply needs to be transferred to another practitioner.

How Is the Muscle Test Performed?

Muscle response testing may utilize any muscle in the body, and testing may be performed in any position that is convenient. O-ring testing, and other such styles of muscle testing are all valid, and there may be application for these in the course of performing NMT. The leg length tests taught in Activator technique, Direct Non-Force Technique (DNFT) and other methods are all MRT approaches based on OTC/OTC communication and could be used in performing NMT. Arm length testing may be used in the same way.

Whether The Practitioners Using Such Muscle Response Tests Realize It, Or Not, When They Initiate MRT They Establish By OTC/OTC Communication A Protocol Of Agreement.

Just as computer modems produce what in computer lingo is called the "handshake" of agreed protocol between the computers, so too the practitioner establishes agreement on the meaning of a strong, or weak response to MRT. If in NET training the doctor is given to understand that a "yes" response to MRT is a strong test, indicating congruence with the challenge statement, then this understanding will be communicated inherently with the doctor's MRT. If a TBM trained doctor is trained with the understanding that a weak muscle is a "yes" response to MRT inquiry, then that understanding will be reflected in the response of the patient to his/her MRT testing.

Whether The Positive Response Is Interpreted As Weak, Or Strong Is Arbitrary. The Only Important Thing Is That The Practitioner Is Clear On What He/She Knows A Response To Mean. If In Doubt Simply Ask "Show Me A 'Yes' Response."

The practitioner who has clarity in the method he/she has been trained in will communicate these ground-rules of communication automatically to the patient, and without conscious awareness of the patient, or perhaps the practitioner. Obviously, any confusion in the mind of the practitioner about the MRT procedure will contribute to opportunity for error in getting a meaningful response from the patient.

The Successful NMT Practitioner Takes Little For Granted. Check Frequently, And Whenever MRT Results Seem Odd By Reversing The Semantic Polarity Of MRT

Challenges – “It Is- <Test>, It Is Not - <Test>” To Establish That Valid Responses Are Always Occurring And Result In An Opposite MRT Response To This Test.

The NMT practitioner will perform many muscle tests in the course of the day whereas the patient in most cases will only be treated once in a day. Therefore, the setup that is chosen for the muscle response testing should be one that ergonomically favors the operator. The position that its preferred in NMT is one in which the patient and practitioner face one another in a seated position. The patient will extend their arm at right angles from the shoulder with their hand in the light fist position. The patient will use the anterior deltoid muscle exclusively to resist. The patient's hand is rotated to a palm down position. The operator grasps the face of the patient's fist with an open palm. The operator's humerus is perpendicular to the floor. The procedure at the moment of effort in the muscle response test requires that the operator ask the patient to resist while the operator pre-loads a little tension into the patient's arm, and then loads a moderate level of resistance into the patient's arm with a smooth, short, steady stroke. This is extremely easy on the operator, and is not overly fatiguing for most patients. The operator should alternate test arms frequently to avoid fatigue in the patient.

Many Types Of Muscle Testing Are Used In The World Of Chiropractic That Are Not Usually Thought Of As Muscle Response Testing.

When we perform MRT, we are conceiving either a statement, or question and looking for a change in muscle activity from some established baseline. As discussed earlier, the MRT response is always a response to the OTC/OTC communication of doctor and patient. Consider the Activator Method of chiropractic. In this method, the patient is generally lying prone while the

practitioner does a simple swipe type of stimulation of a physical area of interest. The practitioner will then monitor changes in reactive leg length, not actual bone length; but the effect on apparent leg length of changes in muscles in the trunk/pelvis area from their state during pre-test inspection. This reactive leg length test is simply a form of MRT just as the apparent leg length, or arm length changes that occur with DNFT are MRT methods. It is reasonable then, that such testing could be used in performing NMT, if circumstances indicate this is appropriate. Observed changes in relative length of the arms are used by some as an indicator of OTC/OTC communication. Whatever indicant is used, the same principles of OTC/OTC communication apply.

Whatever method of muscle testing is used, whatever position the patient is tested in, the primary consideration is that the practitioner projects his/her intent with 100% focus, absolute clarity and comprehension of subject material, and with the greatest possible power of projection of that intent. This is not so much a matter of effort as it is practice to find the mental posture to assume while engaging in MRT.

In What Position Should the Patient Be Tested?

The preferred testing position to MRT is with the patient on a task chair with a swivel base, and the back of the chair removed. A chair that has armrests is more comfortable, and makes rotation of the patient during the course of evaluation and treatment easier. The chair has no back so that the patient's spinal area can be easily accessed. In this position, a full physical examination including orthopedic and neurological testing can be performed. Most physical examination tests can be performed in either a standing, or seated position; or slightly modified to be performed in these positions. This position is therefore highly efficient in the management of patient flow. Once the required level of physical examination has

been performed in the sitting position, the operator can go on to perform the NMT muscle response testing and treatment required on that visit. The course of a particular NMT visit may require multiple muscle response tests and treatment. When the operator and patient are seated facing one another as described, this can be done very quickly and easily. By contrast, if the patient is placed in a supine position on a table, the operator must stand continuously while evaluating and treating the patient, and the patient must repeatedly sit up and then lay back down in the course of evaluation and treatment. This will be fatiguing for both the patient and the operator. When special circumstances dictate otherwise, whatever positional arrangements for testing and treatment appropriate to that situation may be used.

Where Is the Information Coming from That MRT Reveals?

Some students of energetic medicine, and some teachers of energetic medicine techniques may have different assertions about where the information that is gathered by muscle response testing comes from. Some take the position that muscle response testing somehow taps into a great reservoir of universal knowledge and involves a flow of information at an OTC/OTC level. That belief is essential to David Hawkins writing on the subject of MRT and discussed in his books, Power Versus Force, and The Eye of the I. Others take the position that muscle response testing works on a spiritual level. They might argue that the answers come from some spiritual entity, either benign or malignant, depending on one's point of view. Some patients may perceive a conflict between their spiritual orientation and religious training in the use of muscle response testing. A few patients have suggested that muscle response testing is in some way demonic or satanic. It is important to be sensitive to each patient's spiritual orientation. At the same time, it may be of value to be somewhat lighthearted in response to such a patient. I usually

suggest to a patient that if the Devil's plan for world domination is keyed upon the muscle response testing performed in our office that the Devil has a long road ahead of him/her. The fact is that in my practice the clinical efficacy of NMT is so clear, and the continuous subject of waiting room chatter such that even people who initially are skeptical of MRT and reject it because of confusing it with their religious beliefs will, at some point, often suggest that they are ready to be treated with NMT. People take the next step when they are ready to and pushing the issue with a reluctant patient has limited benefit.

What Information Can Be Determined by MRT?

It must be understood that in NMT we very literally look upon muscle response testing as a conversation with the autonomic control system of the patient, and that this autonomic control system is the only source of the information we gather. This has certain implications with respect to the kind of questions for which we can attribute a valid response. We can reasonably expect that the autonomic control system of the patient at some level has an understanding of the physiological conditions within the body. We cannot reasonably expect that the autonomic control system of the patient has access to next week's winning lottery numbers, or the date of the next California earthquake. Not everyone in the world of MRT would necessarily agree that such limitations exist; however, clinical experience will reveal to the NMT practitioner that MRT results demonstrate greater accuracy and consistency in response to some sorts of inquiry than others.

NMT asserts that MRT queries the autonomic control system of the patient, and is therefore limited to what information the ACS has to reveal. The patient's ACS is, almost by definition, dysfunctional. Otherwise the patient would not be a candidate for NMT treatment. At its best, the ACS has limits, just as its conscious nervous

system counterpart has limits – limits to how much processing it can perform in a period of time, how much information it can maintain an awareness of at any given moment.

Those limits may be different from one patient to another, and from one encounter to the next. It is reasonable to infer that the more simple, direct, unambiguous the question, and the more accomplished the practitioner is in forming, shaping, and projecting his/her intent the greater the probability of a reliable answer.

So, we can probably have greater confidence in the MRT response to the question about which tissue has an oversensitive pain sensor than we can to the answer to a question about how many days, or weeks it will take the immune system to clear the body of a particular infectious agent.

There are limits to how much information the conscious mind is able to maintain an awareness of at any time, and so it is with the ACS. So, we may find that a particular line of questioning comes to an end; but that a subsequent exam reveals something more. For example, with treatment of the Allergy Pathway we ask the ACS to consider all allergenic triggers it has recorded in memory that can provoke an immune system response. The ACS may not have registered all allergens in its exposure history when we asked it to catalogue all such allergenic substances. If this is the case, we will find on subsequent evaluation that the patient may have improved; but that some allergenic triggers are still active. The reason for this is that if these still-active allergenic triggers were not within the window of awareness we generated at the previous treatment, they were never part of the group of allergens that were the subject of that treatment and, therefore, escaped correction. Such findings do not represent error in the MRT procedure; but reflect the limitations of

the human nervous system that we must be aware of when performing NMT. This will be more, or less of a problem from one patient to another. When it is a problem, solutions include making a semantic reference to any particular substances we want to be sure are within the ACS's field of view during treatment. The practitioner may even wish to have at hand lists of specific substances – nutrients, toxins, heavy metals, etc. as references to use in identifying particular suspected allergens. The same thing can be done using lists of body tissues or sensory end organs as the Sensory/Motor Pathway is performed. Actual substances, or energetically charged vials are never necessary since the phenomenon of ACS recognition has nothing to do with information the patient perceives from any material sample; but has everything to do with the OTC/OTC communication the patient receives from the practitioner.

What Factors May Influence the Accuracy of the MRT Response?

Other factors that influence the accuracy of the muscle response test have to do with the clarity and depth of understanding of the examiner of the issues being investigated.

The greater the clarity and depth of understanding the examiner possesses the more accurate and valid will be the response from the patient. It is of interest to note that the critical factor here is the clarity of understanding in the examiner, and not in the patient. It is not necessary that the patient have an understanding on a conscious level of the questions that are posed during MRT. This may seem counter intuitive, and yet there are many examples that prove this point. As discussed earlier, it is easiest to see an immediate response to an acute musculoskeletal condition.

It is possible to use muscle response testing with a patient who does not speak the language of the examiner, who is an infant, with the patient who is deaf, or in a situation in which the examiner poses all query/commands in a silent manner. In these situations an immediate objective improvement in the patient's musculoskeletal condition may be observed indicating that a conscious level comprehension is not critical as long as there is an effective communication at an OTC/OTC level between the examiner and patient. It may be inferred that some form of non-verbal OTC/OTC communication has resulted in this clinical change in the patient. Conversely, if we imagine a situation in which the NMT query/command procedure were taught to somebody in a phonetic way that did not result in the operator's comprehension of the procedure (and the patient did not understand the verbiage) we cannot expect that the iconographic level of OTC/OTC communication would occur – and that such treatment would not be effective.

To Learn NMT, The Operator Must First Learn The Query/Command Statements Well Enough That They Are Recalled Quickly And Accurately; And Most Importantly With Clear Comprehension. Simply Repeating The Verbiage Without Clarity Of Comprehension And Intent Will Not Produce Adequate Results.

It must be clearly understood that the most important aspect of communication with the patient in MRT is on an OTC/OTC level. Learning the verbal statements well permits the clarity of thought required to perform the work. Failure to achieve this proficiency will result in unclear communication to the patient's ACS and treatment will either fail outright, be sub-optimal, or may even confuse the ACS into further inappropriate function.

No Attempt At Making Shortcuts In The Verbiage Of The Protocols Should Be Attempted Until The Protocols, As Written, Are "Second Nature". Make A Promise To Yourself That You Will Perform NMT Just As Taught And Written For 90 Days Before Considering ANY Shortcuts In Treatment Statements.

Once that point is reached, comprehension will be clear enough that some foreshortening of statements may be possible. For some practitioners, it may even be possible at that point to use a flip chart, or computer screen serial presentation of each statement, and to bring the statement successfully to consciousness by pointing to it, or visually referencing it.

Thinking in Chunks

Everyone has had the experience of hearing a song for the first time. We have to listen to every note, and word of the lyrics to have the tune in our head. Once we really know it from repetition – just think of a favorite song – every note, word, and meaning of the song come flooding into your mind with the first few notes you hear. So it will become with the NMT clinical pathways that eventually each statement of the pathway will have a unitary meaning, rather than simply being a string of words. The practitioner will achieve a level of familiarity with the clinical pathways such that if the practitioner uses a flip chart, or PDA display of the pathway he/she will produce an instantaneous iconographic representation of it by just glancing at the written representation of the query/command. In this situation, the practitioner could successfully MRT the patient without the usual verbalization, just using the written statement to cue their awareness. Eventually one could become almost "unconscious" in the use of the statements, and their meaning would flash into awareness without the intermediary thought of the words that constitute the verbal statement. Perhaps it is that level of comprehension that great healers have had,

often without a conscious understanding of how they arrived at the ability to transmit their healing intent. With NMT, there is a roadmap to train the consciousness of the practitioner in a stepwise fashion to that understanding. Until that time, the effort to learn and deliver the protocols just as written will be rewarded with superior quality of informational response from the patient in the MRT test procedure. Sufficient numbers of practitioners have been trained in NMT and are routinely reporting stunning success with this work. The difference between practitioners who have fabulous success with NMT and those who have mediocre results is not one of personality, or inborn talent. Success with NMT is a matter of mastering the clinical skills taught in NMT training through faithful and attentive practice of these procedures.

Let Me Emphasize Again: You Must – Repeat – MUST Have A Clear Understanding Of The Intention Attached To The Verbiage Of The Queries/Commands. Delivering These Pathways Exactly As Written Will Embed This Understanding In Your Mind Resulting In The Consistently Outstanding Results I See In My Office.

Know your pathways well. Failure to do so will result in body language (eyes gazing up searching memory for the query/command) that tells the patient you don't know what you are doing. This subliminally conditions the patient to reject the OTC/OTC communication you are offering. The result is treatment failure unrelated to the validity of the NMT treatment model.

What Isn't Important in MRT Testing?

There are other considerations for muscle response testing taught in some of the other techniques that we have referenced. Many of these techniques take the position that the muscle response test is not about any information exchange, but

occurs on an energetic level that can be influenced by the energy of other people in the treatment room at the time of testing. While I will not deny that energetic considerations may be involved, it is the intent of the practitioner which determines the direction of information flow in the OTC/OTC conversation just as literally as the switching mechanisms of the telephone company determines what number rings when we make a phone call. Many of these older energetic techniques insist that the presence of jewelry, metal that crosses the midline of the body, or electronic watches are all capable of adversely influencing the muscle response test. We have not been able to establish with our investigations into NMT that any of this is true, and recommend that such considerations be ignored. Other techniques have taken the position that having children in the room may compromise the muscle response tests because children have a high energetic level. Children whose behavior produces a distraction to the patient should not be in the room for obvious reasons which would influence any communication; but not because their energy somehow creates a problem. We have treated patients in situations where young children have been held in their lap, or have held on to the patient during the course of evaluation and treatment without adversely influencing a favorable treatment outcome. Dogmatic assertions, which are taught without any observable test to validate the assertion, have no place in energetic medicine.

How Should the Patient Receive MRT?

- Help your patient to understand that they contribute 50% to the treatment equation - 50% of success, or 50% of failure.

- Instruct the patient to suspend disbelief! No one should be gullible when receiving healthcare; but once they have decided to be treated, they must at

- Make sure the patient knows there is no value to skepticism while engaged in MRT activity. Healthy skepticism may result in the patient asking questions relative to unfamiliar procedures. Once the patient has made a decision to commence treatment, skepticism has no value and should be replaced, not by belief; but simply the suspension of disbelief – in other words, neutrality.

- Remind the patient that any treatment carries the possibility of failure; but that the time to consider that is before, or after the treatment –not during. The patient who is open and receptive to healing has the advantage.

- Remind the patient that taking the mental posture of expecting success in treatment opens the doors of reception to healing. Any attitude of the patient that contributes to a barrier to the OTC/OTC communication, the heart of NMT treatment, is simply a potential waste of resources.

What Can Compromise the Doctor's Performance of MRT?

- MRT is not about which muscle is used; but that whatever muscle is used the procedure should be carried out with good ergonomics, and attention to patient comfort and fatigue.
- Successful MRT is all about the practitioner's ability to form a pure "picture thought". NMT requires an iconographic representation of the query/command of the protocol statements to be communicated OTC/OTC.

Mentally Visualize What You Intend To Investigate With The Greatest Clarity You Can Must, And Do So With Respect To The Changes You Want To Instruct The Patient's ACS To Make.

- If you can't think through each component of the patient's path to wellness in an unbroken chain you need to go back to your physiology and anatomy texts until you can see the processes as a complete cycle.
- Once you are obtaining spectacular results on a regular basis you won't need to think about your state of mind – you will already be where you need to be. *Until that time, you need to pay close attention so that you can feel what it is to do MRT and recognize when you are doing something that compromises your result.* MRT is, very literally, about the use of a "sixth sense". Some people will pick up this skill immediately. Others will have considerable difficulty doing this and will need to pay very close attention to every aspect of their thinking as they do the work until they "get it". Failure to do so will result in inconsistent and mediocre results unrelated to the qualities of the NMT protocols themselves.

with MRT has left you cynical, the awareness of your cynicism about what you are doing will be communicated as you MRT and necessarily result in the patient's ACS rejecting as invalid the information you have so labeled by your prejudiced posture toward MRT. If the principles of MRT need to prove themselves to you that is just fine. I suggest such practitioners set a particular endpoint – let's say six months of daily work, and then make a decision based on clinical outcomes whether MRT and the NMT method works.

- When you engage in MRT with a patient you will communicate to one degree, or another what you are thinking – particularly emotional content. That emotional content will be clearly labeled on the envelope of the OTC/OTC communication you want to deliver. If you enter into a session of MRT and your mind is filled with doubt, boredom, disinterest in the patient, greed, lascivious intent, anger, jealousy, fear, confusion that, too will be printed on the envelope. What patient would be fool enough to open such an envelope?

- Spend a few moments between patients focusing your mind on the patient and problem you are about to encounter with the next patient – time to tune in to a new channel. Focus!

- Realize that there is no such thing as being a little bit pregnant. What I mean by that is that if you truly comprehend the principles upon which NMT is based, then you will understand that the use of points, vials, and gestures are simply awkward and limiting metaphors for what it is that you want to communicate to the patient. Mixing the use of these things into NMT may produce confusion in the patient's ACS and compromise clinical outcome. If

you need reminders of possible anatomical structures, body chemicals, or exogenous allergens just use written lists to help you out.

- Characteristics of successful work with NMT: CARING – CONFIDENCE – COMPREHENSION – COMPETENCE – COHERENCE – CURIOSITY – COMPASSION!!!

Strategies for Developing and Testing One's MRT Skill

Some practitioners are intimidated about the use of MRT. They don't really grasp what the procedure is all about and in their confusion do much to sabotage their own success. First, simply experiencing doubt about your MRT competence will communicate a warning to the patient that may compromise effective OTC/OTC communication. If you are new to MRT just relax with the experience and recognize that it is not rocket science; but it is one of those skills like riding a bicycle that can be expounded upon ad nauseum, yet will become perfectly clear only by experience.

The fine points of the mechanics of MRT are quite simple. Passive MRT is a bit simpler than active MRT. The prone leg check is mostly a matter of projection of intent and careful observation of position change in the patient's reactive leg length. Active MRT, regardless of the position used, requires some delicacy in the delivery of the test force. The patient is given a little instruction in holding the test muscle in a locked position at the time of delivery of the test force. They should also be instructed that you will apply a slight pressure just before the test force which will cue them to each application of test force that is about to be delivered. This minimizes the repeated conversation through the course of treatment and the practitioner and patient easily get into a flow of the process in which the patient

physically senses when each test is about to be done and pretenses the muscle just then to accept the test force.

Little time is allotted in the NMT seminars to actually practicing MRT because it is something that is best learned in the relaxed atmosphere of one's home or office when hours are available to spend doing the exercises that are discussed here to hone the skill of OTC/OTC communication. MRT has very little to do with the mechanics of muscle testing, except for considerations of ergonomics and comfort, and very much to do with the skill the practitioner has built in forming, shaping, and projecting intent. If you do not understand that, you will not be successful or consistent in your MRT.

Practitioners who have extensive experience with the use of MRT in other methods of treatment will usually find that their skills translate with ease to the practice of NMT. Those with little, or no previous training in MRT are sometimes at an advantage since they don't have the burden of confused explanations of what MRT is and how it works that come with some earlier methods of training in MRT. Still, some are intimidated by the challenge of learning something that may seem intangible. For those people there are simple exercises that will establish confidence that repeatable and reliable MRT testing can be learned.

One such method is to establish some set of information about a test subject that can be independently verified. Using a test subject, inquire about pain, discomfort, or some other active process that they may be experiencing. Select a test muscle and establish that the patient can generate good strength - that they can "lock in" the muscle. Then perform a series of MRT interrogative statements silently. Bring such a statement to mind clearly and concisely and then ask the patient to resist.

Determine if the patient is able to lock in the muscle, or whether there seems to be a difference in the quality of the muscle contraction. A bit of drift to the muscle, sponginess in place of the clear and immediate strength noted in the initial test is an indication of change. An example might be to silently ask, "Is there pain in the left knee?", of a subject who has previously reported such pain. The subject doesn't consciously know even the category of the question you are presenting to them and possibly they haven't even been informed that questions will be presented to them silently. So, a change may be seen as a response of the "other than conscious" mind to the question silently proffered. The practitioner can then test this hypothesis by simply bringing to mind the same question and reversing the semantics of it, eg. "Is there not pain in the left knee?" If the practitioner has indeed established successful "other than conscious" to "other than conscious" (OTC/OTC) communication the test muscle should instantly revert to the initially noted crisp report of full strength on the retest. If not, the practitioner is not successfully engaging in such communication. This exercise can be carried out repeatedly and with a broad range of questions until skill is developed.

Another exercise to develop skill in projecting intent is to select a few simple pictures, perhaps from a magazine or newspaper and to use a test subject to both see how well you can project a picture thought and, by practice, to improve that capacity. One of the pictures you select could be a view of a house. Look at the picture in such a way that the test subject is unable to view the picture. Then ask silently, "In my view of this subject image is there one window? <test> Two windows? <test> Three windows? <test>" Structure similar test statements and spend time doing this exercise until you can project your picture thoughts reliably to a variety of test subjects. Do this silently to develop your skill. Verbal querying in this exercise can only confuse the issues that are important. The test subject should

know nothing about what you are doing, except that they are helping you practice your muscle testing skills. The less involved they are on a conscious level the better.

Once again, learning MRT is a small part theory and a large part practice to arrive at the point at which one feels what it is to do MRT effectively. The creative use of such exercises is capable of bringing the practitioner to a high level of consistency with MRT and confidence with their testing abilities. Assuming you have skills you have not spent the time to objectively test and develop with these exercises will contribute to possible error in performing NMT. Obviously, if you test yourself with these exercises in a number of ways, on several occasions, and with a few different subjects and find that you never find an error in your MRT, then you don't need to devote much more energy to the subject. If you find at some point in your practice of NMT that you are having problems getting the results you expect, I suggest that you go back to these exercises and evaluate your MRT again.

Arriving at that level of confidence in both establishing "OTC/OTC" communication, and being to use tools like the reversal of the semantics of the question to test the test is essential before the practitioner ever begins to use NMT in the clinical setting of the office.

3. Other Considerations Of Importance For Optimal Results With NMT

Some Practitioners Are Blessed with Ignorance.

Many of our practitioners have no previous experience with energetic medicine. Perhaps they are MDs, or DCs who have used the conventional approaches of their professional training; and who have recently taken an interest in energetic healing. Others may be acupuncturists who want to expand on the scope of their training in traditional energetic methods of Oriental medicine. These people often have an advantage over the grizzled veteran of the energetic medicine wars. These practitioners have few preconceptions that get in the way of implementing NMT the way it was designed to be used. They have little misinformation to unlearn. There is nothing in their training history, and clinical practice to tempt them to fragment, corrupt, or otherwise bastardize the comprehensive approach to healing that NMT provides. To the contrary, we have seen that some practitioners with long and distinguished pedigrees of training in virtually every energetic technique that has ever been offered have mediocre, or inconsistent results. In speaking with these people, I have identified several fatal flaws in their implementation of their NMT training. Here is my advice to those of you who have been "around the block" one too many times:

- Adopt a "meek and teachable spirit". Recently, as I was flipping through TV channels, I happened upon a broadcast of a Southern preacher who was talking about the psychological posture his parishioners should adopt to best understand and implement the spiritual message the preacher had to offer

these folks on how to improve their lives. This isn't the sort of programming I was looking for at the time; but he was a good speaker, and he captured my interest. He would prance about the stage, posturing to draw his audience into rapt attention, challenging them that "If you are running wild on Saturday night instead of spending time with your spouse and family, then coming into church on Sunday expecting to receive spiritual enlightenment – you are not coming with a meek and teachable spirit!" I saw a parallel between what he was trying to do with his parishioners, and what I am trying to do with the practitioners who attend NMT seminars. You may come to the NMT training with an attitude that you have "seen it all" in energetic medicine, that you already have the big picture, and you may snooze through the seminar - just listening for a nugget, or two of interesting information to add to your already rich clinical repertoire.

If You Do This You Will Most Certainly Fail To Achieve The Spectacular Results That I Consistently Achieve In My Practice, And That Many Other NMT Practitioners Of A Variety Of Professional Training Backgrounds Achieve Consistently In Their Practice. Assume A "Meek And Teachable Spirit" As You Approach NMT.

Consider the metaphor that in receiving NMT training you have been given a prized violin. Don't expect to go home and begin playing like a prodigy, and don't assume that hitting a few bad notes, or finding it difficult to carry the tune means there is something wrong with the violin.

- NMT is a profound and powerful tool for healing that requires mastery, and mastery of anything valuable takes time and effort. You may have taken

seminars of such simplicity and meager intellectual content that your results were as good on the first day back to your office as they were a year later. However, if those results were anything like the results you have heard, and will be shown are possible with NMT, you would not have felt the need to take the NMT seminar. Be prepared to sacrifice some time and effort to become a master of this work.

- Be aware that effective OTC/OTC communication of corrective input requires that you have a clear picture of the anatomy and the physiologic processes you want to influence. If the iconographic picture in the mind of the practitioner has holes, how can the template of correction received by the patient be complete?

- Spend as much time as you require studying the NMT pathways so that they are second nature. You may need to look at the pathways while treating, but their general structure and layout should be well understood. Ideally, you will begin to use this work in your offices with a level of familiarity such that just looking at the graphical flowcharts posted on your wall will be sufficient to keep you on track while you treat.

- As you begin to implement NMT into your practice, have respect for NMT as a distinct body of knowledge and practice it precisely as taught, and as written. Don't make any changes until you have mastered the work in the way it has been presented to you. Even the simplest of shortcuts – like asking "Has this correction been achieved" as opposed to repeating the query in checking for correction should be avoided until you have done this work for a month, or three.

- Don't try to do NMT with all your patients in the beginning. Select the patients you think would be most open to something that is new to them, and new to you. Over-reaching in this regard will only result in mediocre results, and may cause you to conclude there is a fault with the principles of NMT, not recognizing that the fault was in your plan of implementation.

- Don't try to perform all pathways on your first patients. Use the Infectious Agent Pathway on some conditions in which you are likely to see success, eg. chronic sinusitis cases. Use the Sensory/Motor Pathway (SMP) on things like an old sprain that is still painful. Reinforce your experience integrating NMT into your practice by setting yourself up to win, and not to lose. When the simple cases are easy for you, then begin using NMT with some complex cases, learning by experience how to use the various pathways together.
- Recognize that with the SMP that acute conditions are the most difficult to get immediate responses due to the angry cascade of afferents from the area of injury, and local tissue effects of kinins and other pain producing chemicals in the tissues. Chronic pain has more to do with inappropriate settings of sensors and faults in CNS processing of afferents, and is thus relatively easy to achieve quick responses. NMT is a comprehensive method of accessing the patient's ACS, assessing faults in ACS function, and modulating the ACS to optimal function. It is critical that NMT be seen as the self-contained system that it is, and used that way. Do not take pieces of the pathways and attempt to use them bit wise in an amalgam of other methods you have learned. You will have mediocre results and may not recognize that it is not a weakness in the construct of NMT; but the fact that you are using it in a way that is specifically recommended against.

Practicing NMT Well Requires A Mental Discipline In Application. It Requires That You Think Through The Patients Problem Informed By Your NMT Training – As If You Had No Other Treatment Options Available To You But NMT - To Take The Patient From Presenting Complaint Through Release From Care.

- See every link in the causative chain of their condition and visualize each step in the NMT protocol that may apply recognizing a rational thread that connects each step seamlessly to the step that precedes, and follows.
- NMT does integrate well with various other methods. Many of our acupuncturist NMT practitioners have wonderful results with NMT, and use their previous training in addition to NMT. Chiropractic manipulation, particularly light force methods, may be complimentary to NMT. Either of these may be done on the same visit as NMT; though if pressed, my preference is sometimes that even these be performed on separate visits. I do not recommend trying to blend other energetic/informational medicine treatment methods you may know with NMT.
- Do a thorough examination of the patient, including NMT MRT exam and physical examination when a new patient, or a patient with a new problem presents to you. Prioritize NMT treatment per MRT findings. If you want to perform other methods of energetic medicine I recommend this be done on a separate visit. Be prepared to take off one clinical "hat" before you put on the other clinical "hat".

- Recognize that a successful NMT treatment experience requires that the practitioner get into the NMT mode of thinking while performing NMT. Failure to make the shift into that mind set will influence your OTC/OTC communication with the patient, and necessarily compromise the quality of your results. If you are mixing and matching therapeutic components, it will likely confuse your intent with regard to the big picture NMT attempts to draw the practitioner into, result in a poorly constructed ineffectively projected pathway statement, and consequently the confused reading of your intent by the patient's ACS. Be assured that this will happen unless you immerse yourself in the NMT model of treatment while doing NMT with your patient.
- The use of nutrition and homeopathy may be important to efficiently managing your patient's condition. Certainly, when NMT Infectious Agent Pathway is used homeopathic tissue drainage remedies, and preparations to open emunctories may hasten recovery, and ameliorate tendencies to Herxheimer's reactions to die-off of pathogens. Patients who have nutritional deficiencies require nutritional supplementation. Protomorphogens may be of value in promoting tissue regeneration – particularly in endocrine disorders such as hypothyroidism.
- Consider that some approaches to nutrition you may be familiar with use nutritional supplements to forcefully drive body processes in a particular direction. In NMT we want to use the tools of NMT to find the underlying cause of disease and to correct these faults. Nutritional therapy that focuses on correction of deficiencies rather than chemically forcing body processes may be most compatible with NMT practice. Without being contradictory,¹

would also say that using the nutritional model that employs dosages of supplements to push physiology in a particular direction may be of value on a short term basis to accelerate the patient's return to optimal health. Such use of clinical supplementation is not taught as part of NMT and if used should be informed by appropriate study of such nutritional protocols.

- NMT profoundly changes body function, and does so rapidly. Be aware that this may require changes in previous patterns of nutritional supplementation. It may also require reconsideration of pharmaceutical use. If you are not a practitioner trained and licensed in the use of pharmaceuticals you should make the patient aware of this possibility and suggest they discuss this with their medical practitioner. Ideally, you will establish a good relationship with other health care providers in the patient's life, and interface with them in a constructive way for the optimal benefit of the patient.

- NMT is a new science in its infancy. Even at this early stage, the results achievable by well-trained, and competent NMT practitioners go far beyond those reached with any other energetic medicine method with which I am familiar. Practitioners who have been among the elite in other energetic methods routinely report to us that they are able to produce clinical outcomes with NMT far beyond those attainable with other methods. If NMT is this powerful now, we must recognize that it will continue to be developed and refined. We will get closer and closer to a treatment model that quickly and efficiently corrects any faults in body controls.

Our seminar notes have changed with each seminar. Clinical pathways have been polished and enhanced. NMT is a therapeutic model with no obvious limits to how

powerful a clinical tool it may become. The NMT practitioner committed to excellence will see that the process of learning and growth are ongoing. So, it is important to become a part of the internet-based online continuing education program in NMT. This will include regular updates to seminar notes and clinical pathways. We plan to develop and offer for purchase DVD video of actual cases treated in my office or during seminar settings, and mock treatment of interesting conditions based on my clinical experience. The NMT Online Support Program also includes secure forum areas in which clinical information can be exchanged with other NMT practitioners. There will be the opportunity for you to query me about specific cases and problems that you run into with this work.

Support for NMT practitioners will exclusively be offered on the website for at least several reasons. First, everyone will benefit from learning by reading the questions from practitioners, and my replies to them. People often have the same questions as you but just haven't gotten around to asking them - or perhaps even clarifying the question to themselves. Second, time considerations require that I support NMT practitioners in an efficient way. So, I need to be able to reply to questions posted to me by email to the website when it is convenient, rather than try to field calls while I am treating patients in my office. This also results in building a database on the website in which are archived all the responses I make and other practitioners make to questions that are posted. The special software we use for the message board makes it easy to search these archives for posts about any subject, by any person, or for any date range. Finally, membership to the website supports the cost of providing such services and permitting people to request support in other ways undermines the whole purpose of the website. The cost for NMT Online Support Program is negligible and easily made up for by improvements in your performance of NMT as a result of the information you learn - even if you were only to pick up

one morsel of information per month that caused you to succeed with a difficult case. The decision to subscribe to the NMT Online Support Program must be made with the good business acumen that tells us that the money you spend to improve your clinical efficacy has the economic benefit of building your practice. Life is not a zero sum game, and the money you spend to achieve clinical excellence through participation in NMT Online Support is not money taken from a limited purse; but is paid for by the growth in your practice that comes with being very good at what you do.

4. NMT: A Very Brief Overview Of The Nervous System

1) Development of the nervous system:

- a) Fertilization of the egg and the sperm results in the zygote. Division of the zygote eventually produces the blastula, a hollow spherical structure composed of cells known as the blastoderm that surrounds an empty space known as the blastocoel.
- b) The blastocoel continues development changing as it grows from a spherical structure to an orientation along a longitudinal axis.
- c) Cells of the primitive embryo differentiate into three categories known as the ectoderm, mesoderm, and endoderm. The ectoderm differentiates into the skin and the nervous system. The mesoderm differentiates them into connective tissue structures, and endoderm differentiates into the gastrointestinal and endocrine system.
- d) The earliest distinct formation of the nervous system becomes the "primitive neural tube", a structure of primitive nervous system cells that looks something like a sock. The cells lining the primitive neural tube become the tissues of the brain and spinal cord and segments into fore-, mid-, and hindbrain – the prosencephalon, mesencephalon, and rhombencephalon which later give rise to all recognized structures of the mature nervous system. The forebrain gives rise to the cerebrum, thalamus, and hypothalamus, the midbrain to the corpora quadrigemina, and the hindbrain to the cerebellum, pons, medulla oblongata, and spinal cord.

2) The Cerebrum (C)

- a) About 90% of nerve cells are located in the cerebral cortex.
- b) The central fissure separates the anterior portion of the cerebrum where planning and execution of efferent processes takes place from the posterior portion of the cerebrum where all afferent signals are received and processed.
- c) Large uncharted areas of the cerebral hemisphere are concerned with mental processes such as intelligence, memory, judgment, imagination, creative and conscious thought.
- 3) The Cerebellum (CB)
- a) The cerebellum is widely agreed to function to coordinate sensory/motor activity. It provides a template by which fine and gross motor control is integrated with respect to time and spatial relationships, and patterned in a functional way.
- b) Reverberating and oscillating loops of neuronal firing provide a framework against which current activity is integrated with temporal continuity. This function is much like the role of RAM memory in a computer.
- c) Cerebellar function is critical to learning, and plays a role in dyslexia and other learning disabilities according to recent research.
- d) Much is unknown with regard to cerebellar function.

- e) MRT indicates the cerebellum may template functions other than musculoskeletal motor function.

4) The Basal Ganglia (BG):

- a) The anatomy of the basal ganglia is very complex, as is the function of these ganglia and their relationship to other structures in the nervous system.

Anatomically, the basal ganglia are the caudate nucleus, putamen, globus pallidus, amygdaloid nucleus, and claustrum. The thalamus, sub thalamus, substantia nigra, and red nucleus function closely enough with the basal ganglia during motor control that they are sometimes considered part of the basal ganglia group.

- b) The sense of smell is one of the least well understood of sensations.

Processing of smell occurs in the medial olfactory area, and lateral olfactory area. The medial olfactory area is composed of a large group of nuclei in the mid portion of the brain antero-superior to the hypothalamus. The lateral olfactory area includes part of the amygdaloid nuclei.

- c) According to Guyton, "in short, stimulation of the appropriate portions of the amygdaloid nucleus can give almost any pattern of behavior. It is believed that the normal function of the amygdaloid nuclei is to help control the overall pattern of behavioral demand for each occasion." He notes that in lower animals this area is primarily concerned with association of olfactory stimuli with stimuli from other parts of the brain.

- i) Research with patients in the development of NeuroModulation Technique suggests that the amygdala, and basal ganglia are involved in the tagging of afferent stimuli associated with the allergy phenomena.

(See tagging of afferent stimuli in the glossary)

- 5) The Hippocampus (HC):**
- a) The hippocampus makes numerous connections with all areas of the limbic system including the amygdala, hypothalamus, and areas functionally associated with the hypothalamus.
 - b) The hippocampus is activated by virtually any sensory experience.

6) The Hypothalamus (HT):

- a) The hypothalamus controls a wide variety of visceral functions and expresses this control through sympathetic and parasympathetic pathways. It is also a site of complex integrative processes involving visceral and semantic components involved in water balance (blood pressure), control of energy expenditure and food intake, and maintenance of body temperature. Glucose sensitive sensors in the hypothalamus play a significant role in this process of energy regulation.
- b) The hypothalamus and limbic system function together closely for regulation of emotion, sexual behavior, pituitary function, learning and memory, extrapyramidal motor activities, and more.

7) The Thalamus (T):

- a) All areas of the cerebral cortex have direct afferent and efferent connections with the thalamus. Ablation of the connections between any area of cortex, and the thalamus entirely abrogate the function of that area cortex. The thalamocortical system describes the cortex and all specific thalamic nuclei with which they are connected.

- b) The cortex is considered anatomically, and functionally to be an outgrowth of the thalamus. With the exception of the olfactory tract, all sensory pathways pass through the thalamus.
- c) The central position of the thalamus and the extensive connections it has to most other important areas of the brain make it a primary mediator of both sensory and motor function.

8) The Reticular Activating System (RAS):

- a) Anatomically this system begins in the lower brain stem and extends upward through the mesencephalon and thalamus to be distributed throughout the cerebral cortex. This anatomical relationship lends itself to the role of general and specific arousal reactions throughout the nervous system.
- b) The reticular activating system can be aroused by virtually any sensory stimulus in the body and can in turn exert influence upward to higher areas of the brain and downward to the spinal cord.
- c) In NMT we find that processing error in the reticular activating system may result in the cross linking of various data resulting in inappropriate responses from the immune system. (See crossover autoimmune response in the glossary)

9) The Sensory End Organs (SEOs):

Per Guyton, over-stimulation of any receptor can give rise pain sensation.

a) Epithelium Receptors:

- i) Free nerve endings - pain are associated with the cornea, skin, and mucosa.
- ii) Temperature - receptors exist for both heat and cold.

f) Ligament:

- i) Stretch receptors
 - ii) Pain receptors
- g) Vertebral disk:
- i) Stretch receptors - the disk is a ligament structure.
 - ii) Pressure receptors?
 - iii) Pain receptors - located in the outer layer of the disk.

Usually both receptors are involved when there is a problem with annulus receptors in the Sensory/Motor Pathway.

h) Fascia:

- i) Stretch receptors
 - ii) Pain receptors
- i) Bone:
- i) Pressure receptors - at subchondral bone
 - ii) Pain receptors

j) Periosteum:

- i) Pain receptors
- ii) Pressure receptors
- iii) Stretch receptors?

k) Cartilage:

- i) Pain receptors
- ii) Pressure receptors

q) Adventitia/fascia: Definition - connective tissue supportive to the organ.

l) Synovium:

- i) Pain receptors
 - ii) Stretch receptors?
 - iii) Chemoreceptors?
- m) Mucous membrane:
- i) Chemoreceptor - respiratory and digestive tracts.
 - ii) Pain receptor
 - iii) Stretch receptor
 - iv) Light touch receptor
- n) Cornea
- i) Light sensitive when abraded.
 - ii) Light touch receptor
 - iii) Pain receptor
 - iv) Pressure receptor
- o) Viscera - Organ capsule:
- i) Stretch receptor - strong registration of pain on heavy stretch.
 - ii) Pain receptor
- p) Smooth muscle of vascular/visceral walls:
- i) Muscle spindle apparatus - stretch
 - ii) Pain receptor

- i) Stretch receptors
- ii) Pain receptors

r) **Ligaments:** - the broad, usually flat ligaments that support abdominal and

pelvic viscera.

- i) Pain receptors
- ii) Stretch receptors

s) **Cardiovascular:**

- i) Chemoreceptors - oxygen/CO₂, pH
- ii) Stretched receptors - muscle wall
- iii) Pain receptors
- iv) Pressure receptors-response to luminal pressures

t) **Central nervous system:**

- i) Chemoreceptors - particularly at specific areas devoid of the blood brain barrier (hypothalamus and other areas associated with endocrine/pituitary control).

ii) Pressure receptors - CSF

- iii) Pain receptors - Dura Mater, dural sheath, filum terminale, denticulate ligaments – check for spinal and cranial nerve level specificity.
- iv) Stretch receptors – Dura Mater, dural sheath, filum terminale, denticulate ligaments – check for spinal and cranial nerve level specificity.

- v) **Vestibular system - Special proprioceptors:**
 - i) Three semi circular canals - cupula hairs read endolymph movement to gauge starting and stopping of movement of the head.

v) **Hearing:**

- i) Cochlea - organ of Corti. Afferent processed through inferior colliculus.
- ii) Utricle and saccule - otolith movement registers changes in position of head.

w) **Vision:**

- i) Rods and cones - register light perception. Afferent processed through superior colliculus.
- ii) Pain receptors associate with all tissues.
- iii) Pressure receptors
- iv) Stretch receptors associated with muscular elements of intra-ocular structures, eg. constrictor/dilator pupillae, lens focusing musculature.

x) **Olfactory:**

- i) Olfactory epithelium contains receptors for smell. This afferent is direct to olfactory centers of the brain.

y) **Taste:**

- i) Four types of taste buds (chemoreceptor) relay information through the thalamus to the parietal lobe.

10) **Motor end organs (MEOs):**

- a) Muscle-motor end organ to muscle causes muscle cell firing when stimulated.
- b) Endocrine-motor end organ stimulation of a gland causes production/release of hormone, hormone-releasing chemicals.

- c) Exocrine-motor end organ stimulation causes production/release of sweat, mucous, enzyme, or other product.

5. NMT: Pernicious Synaptic Patterns – PSPs

Definition:

A dysfunctional distributed network of erroneously recorded data patterns in the central nervous system. Specifically, it is the persistence of a dysfunctional and inappropriate network of such data of sufficient complexity and structure to function as a set of dysfunctional instructions, or mini-programs. These entities are capable of producing harmful chaotic behavior within the nervous system, and compromising otherwise appropriate neurological functions. The symptomatic expression of such entities is dependent upon the way in which the pernicious synaptic pattern is structured to interface with, and potentially interfere with some particular functional aspect of the nervous system.

Consequent influences of PSPs on any somatic, emotional, or intellectual process may cause any imaginable symptom.

The Influence of Past Experience on Present Function

The persistence of data in the brain, the lasting trace of previous experience be it external stimuli, or internal processing of information may be referred to as memory. It is generally agreed that this memory is physically represented by patterns of synaptic connection, much like the pattern of zeros and ones in a computer is a physical representation of information. The term "memory" should be distinguished from "learning", though often it is not. For the most part, learning is often used without prejudice so that all data recorded by the nervous system may be referred to as the result of learning. It is our position in NMT that some discrimination should be made with regard to this term. The term "learning" should

be applied to the appropriate, and successful recording of data that is the product of experience internal, or external to the body.

According to Guyton, 7th ed., pg 548:

"The Storage Of Information Is The Process We Call Memory, And This Too, Is A Function Of The Synapses. That Is, Each Time Certain Types Of Sensory Signals Pass Through Sequences Of Synapses, These Synapses Become More Capable Of Transmitting The Same Signals The Next Time, Which Process We Call Facilitation. After The Sensory Signals Have Passed Through The Synapses A Large Number Of Times, The Synapses Become So Facilitated That Signals Generated Within The Brain Itself Can Also Cause Transmission Of Impulses Through The Same Sequence Of Synapses Even Though The Sensory Input Has Not Been Excited. This Gives The Person A Perception Of Experiencing The Original Sensation, Though In Effect They Are Only Memories Of The Sensations."

So, it seems clear that if erroneous synaptic patterns could form, that these patterns would be reinforced over time by experience and eventually self-perpetuate dysfunctional activity that could compromise optimal performance. Indeed, there is something inherent in the way the nervous system functions with respect to the role of stored data referenced in preparation for motor response. This phenomena is also described by Guyton, 8th ed., pg 478. "Most activities of the nervous system are initiated by sensory experiences emanating from sensory receptors, whether visual receptors, auditory receptors, tactile receptors on the surface of the body, or other kinds of receptors. This sensory experience can cause an immediate reaction, or its memory can be stored in the brain for minutes, weeks, or years, and then can help determine the bodily reactions at some future date." Therefore, more than 99% of all

stimuli that regulate motor function comes from the memory of past experiences (except in an emergency)." It seems clear from Guyton's description that any inappropriate, or inaccurate recording of synaptic patterns could result in an ongoing compromise of normal motor neurology.

The proposition that synaptic patterns in the CNS can influence function before voluntary activity even begins is well documented. Again, Guyton, 7th ed., pg 548, provides some guidance in this area:

"Simply Thinking About Exercise Has The Psychic Effect Of Exciting The Autonomic Nerve Centers, Which Increases The Heart Rate, Increases The Strength Of Heart Contraction, And Constricts The Blood Vessels Throughout The Body To Increase The Mean Systemic Filling Pressure. Together, These Effects Can Increase The Cardiac Output Instantaneously As Much As 50%, Even Before Exercise Begins."

Other authors have described how the contemplation of eating can initiate motor responses in the gastrointestinal system. A simple exercise to confirm this is to think about cutting and squeezing a fresh lemon, experiencing the smell and anticipating the taste. For most people, an increase in salivation will be noted. Consider that if so fundamental and profound a function as cardiac output, or gastrointestinal activity can be changed by such a normal and "functional" synaptic patterns, what may occur if dysfunctional patterning were generated under conditions of sufficient systemic stress, and were to persist in memory subject to being engaged, and activated by subsequent experience. The possibilities for compromise of normal physiology are immense.

The position of this author is that data may be recorded inappropriately resulting in units of recorded information that will be referred to as "pernicious synaptic patterns". Such patterns, being by definition unsuccessful or inappropriate recordings of data, could exist as such disorganized, and simple traces in the nervous system as to be unable to influence any neurological function. Other patterns of synaptic connections may rise to a sufficient level of complexity and organization to function as a "script", "macro", or "program", to use another computer analogy. These may be considered to be data processing errors of the human bio-computer, perhaps the result of data processing occurring under too great a processing load, and/or when the subject is experiencing some sort of stress.

To The Extent That Such Pernicious Synaptic Patterns Have Sufficient Complexity And Organization To Function As A Program In The Nervous System, And To The Extent That They May Interact With Normal Voluntary, Or Involuntary Nervous System Processes, They Can Only Result In Degradation Of Neurological Performance.

NeuroModulation Technique teaches that PSPs can be of a sensory, motor, or an emotional nature. PSPs are believed to be distributed networks of synaptic connection, rather than being confined to a specific anatomical area. PSPs that have the greatest influence on function may be presumed to reside primarily in areas of the brain associated with planning and execution of actions.

Others have noted this type of phenomenon in the area of energetic medicine. NeuroEmotional Technique (NET) as taught by Scott Walker, D.C. has described an entity he calls the neuroemotional complex (NEC). This is thought to be a dysfunctional memory pattern associated with some specific prior event, or

experience which perpetuates an unintended response of the nervous system when stimulated by some aspect of current experience, or recollection. Others in the field of energetic medicine have less well-defined concepts of the influence of neurological patterning that compromises optimal nervous system performance. The correction of such problems may be as generic a fix as assuming a particular hand mode, or mudra while some form of treatment is done while the patient holds a particular radionically prepared vial.

Corrective Intervention In NMT Is Always A Matter Of Assessing Where Neurological Dysfunction Is Occurring, And The Nature Of That Dysfunction, And Then Correcting For This Either With Commands That Result In A More Functional Distribution Of Information In The Nervous System, The Elimination Of Faulty Information, And/Or In The Alteration Of Some Ongoing Process Of Neurological Facilitation, Or Inhibition.

So it is in the matter of pernicious synaptic patterning. PSPs exert effect to the degree that they are attached to some particular area of memory, or function. The process of accessing particular groups of functionally related PSPs involves activating the related memory areas of the nervous system by various means. PSPs associated with particular motor, or sensory experience and activity may be engaged by having the patient assume a particular posture, motion, or experience a particular sensation. PSPs associated with a particular area of physical injury, or disease may be engaged by mild physical provocation of the area.

Tapping, Stretching, Pressing, Or Specifically Posturing A Physical Area Suspected To Be Related To Stored PSPs While The Query For PSPs Is Performed Will Often Bring More PSPs To A Level Of Awareness. PSPs Associated With More Complex

Experiences, Or Relationships May Be Engaged Semantically By Asking The Patient To Consider Their Recollection Of Such Topics.

Suggesting particular context, or relational considerations that may interplay with the target experience may further enhance this. The end result of such activities on a clinical level with the patient will be to bring to a level of awareness the PSPs that have been successfully referenced.

If You Were In The Shoes Of Your Patient, What Would Be The Themes That Would Be Significant To You – Fear Of Aging, Death, Anger Over The Interruption Of Their Life By Illness, Frustration With Previous Attempts At Treatment? If You Can Relate To The Common Humanity Of The Patient You Will Understand The Themes Around Which You Will Find Pernicious Synaptic Patterning.

The assessment of PSPs in NMT involves questions that specify the existence of active, inactive, and latent PSPs. This is simply a distinction of the relative degree to which a PSP is engaged, or activated and therefore the degree to which it is currently affecting physiology. An active PSP is fully engaged and currently influencing physiology. An inactive PSP is not engaged at the moment the MRT query is posed, so unable to influence physiology at the time of the MRT. The inactive PSP is at a high enough level of awareness that it is very likely to be engaged at some future time. A latent PSP is a pattern that has the potential to become engaged given the appropriate triggering experience; but otherwise exists at a more remote level of awareness than the inactive PSP. These categories for PSPs are of value in that by specifying characteristics of the memory storage of the PSPs, it may favor the efficiency by which the ACS is able to recognize PSPs. This makes

NMT teaches that failure of normal neurological controls is the result of some interference to the optimal expression of neurological programming that expands from the initial DNA database of the individual.

We Also Teach That The Autonomic Control System Is A Self-Regulating, Plastic, And Intelligent Entity That Will Take The Appropriate Corrective Measures Once It Has Been Given An Awareness Of Its Error.

With regard to PSPs, the correction causes the autonomic control system to identify and quantify relevant PSPs, recognize the fact that they are compromising optimal function of the system, and that the solution to this problem is to disorganize these pernicious synaptic patterns.

Correction of Pernicious Synaptic Patterns
PSP correction will be part of every clinical pathway. Here is the general outline of treatment for PSPs:

NMT: Pernicious Synaptic Patterns (For Any Pathway)

1. "Are there active, inactive, or latent PSPs associated with this complaint?" Use semantic cues, position, posture, muscle challenge, and other methods taught to provoke PSPs to a level of awareness to facilitate treatment. If no, check MRT, and cognitive valuation for confirmation. If yes, proceed to the

- following sub-menu and also be aware that PSP issues may present at any fork in a clinical pathway - suggested by inappropriate responses to MRT:
- a. "Is there any fault in cognitive valuation compromising the perception of the full spectrum of PSPs related to this condition?" If no, go to next question. If yes, proceed to the following sub-menu:
 - i. "Is any level of the ACS aware of correct cognitive valuation with regard to this?" If no, check MRT. If yes, proceed to the following question.
 - ii. "Are all levels of the ACS aware of correct cognitive valuation with regard to this?" If no, check MRT. If yes, proceed to the following question.
 - iii. "Would it be of benefit to treat with the intention of making all levels of the ACS aware of correct cognitive valuation in this regard?" If no, check MRT. If yes, proceed to the following question.
 - iv. "Would it be of benefit to treat with the intention of correcting all faults in cognitive valuation at this time?" If no, check MRT. If yes, proceed to the following question.
 - b. "With regard to the number of active, inactive, and latent PSPs is the number 10 to the Xth?" To quantify PSPs start with X=10 and work up by multiples of 10 (next number in this series is 10, then 1000) until

you get a "no". Then cut the previous interval by halves until you arrive at a number that tests affirmative. If you first cut the previous interval in half, and this was too low, go up by half of the interval toward the number that first gave you a "no" until you arrive at the correct number. Accuracy to the whole number at the power level you are checking is adequate. This is because in doing a bracket query, and in establishing over and under limits to this number the ACS has necessarily quantified the PSPs. It is seldom necessary to spend the time to narrow this down further. Do not project your expectations for the quantity of PSPs you expect to find. To do so is to "stop down" your field of view as when you focus on some object close to you and miss the elephant in the background beyond your field of vision. Realize that the effect of ancestral morphic fields may account for a significant number of PSPs identified; best noted if there is an awareness in the practitioner of the way ancestral morphic fields inform present function.

- c. "Would it be of benefit at this time to treat with the intention of making all levels of the ACS fully aware of the identity and existence of these PSPs, that they are producing harmful behavior, and that they must be disorganized to restore normal function?"
- d. Perform serial rechecks within a visit session using the methods you know for provoking them to awareness until no further PSPs are evoked, or satisfactory symptom improvement is achieved.

e. Future Vigilance Statement may be use: "Would it be of benefit to treat with the intention of causing the ACS to maintain an awareness for any future presentation of pernicious synaptic patterns (related to this condition), and upon recognition to cause the ACS to recognize the identity and existence of these pernicious synaptic patterns, the fact they are causing harmful behavior, and that they must be disorganized to permit a return of normal function?"

6. NMT Large Number Notation

PSP Numeration

American	British	power of 10
million	Million	10^6
billion	Milliard	10^9
trillion	Billion	10^{12}
quadrillion		10^{15}
quintillion	Trillion	10^{18}
sextillion		10^{21}
septillion	quadrillion	10^{24}
octillion		10^{27}
nonillion	quintillion	10^{30}
decillion		10^{33}
undecillion	sexillion	10^{36}
duodecillion		10^{39}
tredecillion	septillion	10^{42}
quattuordecillion		10^{45}
quindecillion	octillion	10^{48}
sexdecillion		10^{51}
septendecillion	nonillion	10^{54}
octodecillion		10^{57}
novemdecillion	decillion	10^{60}
vigintillion		10^{63}
	undecillion	10^{66}

Base 10 Scientific Notation

The use of scientific notation makes quantification of PSPs practical when numbers run high, as they often do. The above table gives nomenclature for large numbers. Some practitioners may not want to use such nomenclature. There are gaps in the naming of large numbers that make use of such naming difficult for many large

numbers. Another way of specifying large numbers when nomenclature does not exist for a specific number is simply to use scientific notation. In doing so we are specifying the power by which 10 is multiplied by itself. 10 to the 2nd power is 10 multiplied by itself twice, or 100. As the reader will note with the above table large named numbers are also expressed as powers of 10 themselves. So, 10 to the quadillion is 10 multiplied by itself 10 to the 15th power times, or "10 to the 10 to the 15th". Similarly, any large number can be expressed as 10 to the 10 to the X numbered power and this may be the most convenient way of specifying very large numbers.

7. Disclaimers Regarding NeuroModulation

Technique:

Diagnosis - NeuroModulation Technique does not diagnose any disease. Diagnosis requires a particular type of clinical, and other examination procedures, and the correlation of the results of such procedures by a physician trained in diagnosis. Many NMT practitioners are so trained, and have MD, DO, DC, or ND degrees. Other NMT practitioners are licensed health care practitioners without such training in diagnosis. It is recommended a physician trained in diagnosis always be part of the patient's health care team.

Infectious Agents - Determination of the existence of particular infectious agents in the body, and the identification of such organisms is widely agreed within the world of health care to require specific laboratory testing. NMT does not diagnose any infectious agent, and is not a substitute for appropriate laboratory testing. Rather, NMT evaluates the perceptions of the autonomic control system, and immune system with regard to such issues, and attempts to optimize autonomic function with respect to immune system control.

Cancer - NeuroModulation Technique is not a method of diagnosing, or treating cancer. Medical oncologists are the only health care personnel appropriately trained to manage the treatment of cancer. NMT is not a substitute for appropriate medical care of cancer. Some patients who happen to have cancer may be under treatment by NMT practitioners for a variety of reasons. NMT treatment may be of value in producing more appropriate autonomic control system, and immune system

function, and this more appropriate function of body control systems is of benefit to any patient.

Allergy - It should be remembered that some allergy responses could be quite dangerous. The practitioner should become familiar with acupuncture reflex points helpful in regulating such acute responses, which may rarely present when doing energetic treatment for allergy, even when actual samples of allergen materials are not present. Any time that actual substances are used as challenges in the course of performing the allergy pathway on a patient with a history of anaphylactic response to the allergen the patient should have with them and be able to administer their medication used in such circumstances, eg. Epi-pen, benedryl, etc. The parent should bring such medications if the patient is a child.

Treatment Consent Form - The form which follows this page is a release which has been reviewed by NMT legal counsel and should be used to establish a clear understanding about what you will be doing for the patient, and just as importantly, what you will not be doing for them. It is recommended that each patient who is treated with NMT sign this form prior to his or her first NMT treatment. A copy should be given to the patient and one should be placed in the patient's file.

8. Informed Consent Agreement

NMT: The Feinberg Technique Treatment Consent Form

NeuroModulation Technique ("NMT") is intended to determine the patient's perception of conditions contributing to illness. I desire to be screened with NMT, and hereby consent to participate in this type of screening and treatment.

The procedure has been explained to me, and I understand that certain adverse effects may result from the treatment. These could include, but are not limited to, a temporary soreness in muscles of the arms tested, or a temporary flare-up of my symptoms. Other possible side effects include symptoms of heightened immune function or detoxification such as fever, chills, headache or body aches.

I understand that NMT: *The Feinberg Technique* is not a medical diagnostic procedure, and therefore does not diagnose disease. Diagnosis requires particular types of clinical examination procedures by a physician trained in diagnosis. By contrast, NMT is intended to determine the patient's perception of conditions contributing to illness. I understand that Muscle Response Testing ("MRT") employed in NMT, like any medical testing procedure, is not 100% accurate.

I understand that alternative methods of treatment are available. These have been described to me. If I am suffering from severe allergic reactions to substances, I will consult an appropriate physician and, if so advised, take medication (to prevent itching, tissue swelling, fever, cough, pains, etc.) to keep my symptoms under control while I am being treated with NMT: The Feinberg Technique.

I understand that determination of the existence and identification of particular infectious agents in the body requires specific laboratory testing. NMT: The Feinberg Technique does not diagnose any infectious agent, nor is it a substitute for appropriate laboratory testing. Rather, NMT evaluates the perceptions of the autonomic control system, and immune system with regard to such issues, and attempts to optimize autonomic function with respect to immune system control.

NMT: The Feinberg Technique is not a method of diagnosing or treating cancer. Medical oncologists are the only health care personnel appropriately trained to manage the treatment of cancer. NMT is not a substitute for appropriate medical care of cancer.

I agree to cooperate and take an active role in my treatment by maintaining a positive attitude regarding treatment, continuing contact with and treatment from medical practitioners, and communicating progress and side effects to the health care provider administering NMT. I understand that I am to continue all medication and other treatment modalities as they have been prescribed unless otherwise directed by the doctor who prescribed them.

I understand that there is no guarantee concerning the effect of the treatment. I understand that I am free to discontinue treatment at any time, but acknowledge that I am responsible for full payment of the normal and necessary fees associated with my screening and treatment.

I also understand that clinical data is presently being collected on the technique that requires the gathering of certain information in accordance with research protocols.

I understand that the results of this study may be published in a medical or scientific journal, and that a number or letter designating my case, but not my name, may be used in reports of this study.

I have read, or have had read to me, the above statements, and have been provided with the opportunity to ask any pertinent questions I have regarding this screening and treatment program. I have been informed that I am to contact the doctor if any problems are encountered during my treatment. I understand the conditions stated above, and hereby consent to participate in this type of screening and treatment. By signing below I agree to the terms and procedures set forth above.

IN WITNESS WHEREOF, I have executed the foregoing this _____ day of _____.

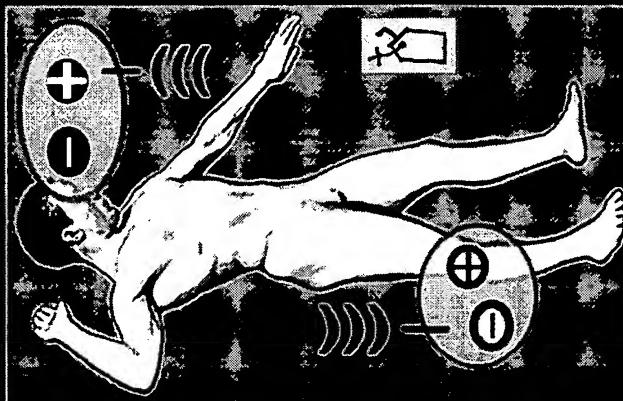
Patient's Signature _____ *Patient's Printed Name*

If minor, signature of parent or guardian _____ *Parent or Guardian's Printed Name*

Practitioner _____ *Witness*

SENSORY / MOTOR PATHWAY (SMP)

CORRECT COGNITIVE VALUATION - AWARE ALL ASPECTS HEALTH ?	2 FAULT IN COGNITIVE VALUATION ? (TX)
A.C.S. AWARE OPTIMAL TEMPLATE FOR PHYSICAL, MENTAL, EMOTIONAL HEALTH ?	3 PERNICIOUS SYNAPTIC PATTERNS ? TX: TO DISORGANIZE PSPs
1 SMP FAULT RELATED SYMPTOMS ? ALLERGY ? ENDOGENOUS EXOGENOUS INFECTIOUS AGENT ? CROSSOVER AUTOIMMUNE REACTION TO INFECTIOUS AGENT OR ALLERGEN ?	4 FAULT IN TAGGING AFFERENT STIMULI RELATED TO PERCEPTION ? GLOBAL ? PATH SPECIFIC ? ID AFFERENT AWAR APPROPRIATE TAGGING ? ANY LEVEL ? TX: ALL LEVELS AWARE OCCURRING AT ANS SITE ? IDENTIFY- TX: CORRECT - REPEAT
	5 FAULT IN SENSORY END ORGAN ? SPECIFIC TISSUES / END ORGANS ? THRESHOLD SET HIGH / LOW ? CNS FAULT ? FACILITATE / INHIBIT ? TX: RESET SEOs AND CNS - PRN
	6 FAULT IN CNS PROCESSING ? CNS SITE OF FAULT ? FACILITATE / INHIBIT ? INTRA CNS FAULT ? ORIGIN SITE / TARGET SITE ? IDENTIFY- TX: CORRECT - RECHECK
	7 PARASYMPATHETIC / SYMPATHETIC PROCESSING FAULT ? FACILITATE / INHIBIT ? SP OR CNS PRIMARY ? , IDENTIFY- TX: CORRECT - RECHECK
	8 MOTOR PROCESSING FAULT ? FACILITATE / INHIBIT ? SITE SPECIFIC / GLOBAL ? CNS FAULT SITE ? IDENTIFY- TX: CORRECT - RECHECK
	9 MOTOR END ORGAN FAULT ? SPECIAL PROPRIOCEPTORS STRETCH TEMPERATURE FREE NERVE ENDINGS CHEMORECEPTORS LIGHT
	10 OTHER ACS FAULT ?



9. NMT: The Sensory/Motor Pathway (SMP)

1. "With regard to the (specify the sensory/motor complaint, dysfunction, tissue, organ, or system) is there any fault in sensory/motor control causing, or contributing to this condition (dysfunction of tissue, or system, etc.)?"
Alternatively, a specific area may be provoked mechanically, or ACS attention reinforced by contact of the area during MRT. If no, proceed to another area of investigation. If yes, proceed to the following sub-menu to determine any concomitant involvement of other pathways :
 - a. "Is there any role of an infectious agent causing, or contributing to this condition?" If yes, the infectious agent pathway will require treatment at some point.
 - b. "Is there any role of an allergic phenomena (endogenous, or exogenous allergen) causing or contributing to this condition?" If yes, the allergy pathway will require treatment at some point.
 - c. "Is there crossover autoimmune phenomena between infectious agent and body tissue; or an endogenous/exogenous allergen and body tissue?" If yes, treatment of the crossover autoimmune phenomena will be required. It is possible that the body may retain autoimmune behavior triggered by an infectious agent that is no longer present, or an allergenic trigger that is no longer active.

2. "Is there any fault in cognitive valuation with regard to any aspect of the condition?" If no, proceed to the next question. If yes, proceed to the following sub-menu:
 - a. "Are all levels of the ACS fully aware of correct cognitive valuation of all aspects of this condition?" If yes, proceed to "b". If no proceed to the following sub-menu:
 - i. "Is any level of the ACS fully aware of correct cognitive valuation of all aspects of this condition?" If yes, proceed to the following question. If no, investigate the possible cause.
 - ii. "Would it be of benefit to treat at this time with the intention of making all levels of the ACS fully aware of the correct cognitive valuation of all aspects of this condition?" If yes, treat spinal points with breathing cycles and proceed to the next question. Consider that in some cases it may be necessary to investigate specifically the nature of the fault in cognitive valuation. Also consider that there may be forks in the pathway where specific issues of fault in cognitive valuation appear – suggested by apparently inappropriate MRT responses.
 - b. "Would it be of benefit to treat at this time with the intention of correcting all faults in cognitive valuation of the condition?" If yes, treat spinal points with breathing cycles and proceed to the next question.

3. "Are there active, inactive, or latent PSPs associated with this complaint?"
If no, proceed to the next question. If yes, proceed to the following sub-menu, and also be aware that PSP issues may present at any fork in a clinical pathway - suggested by inappropriate responses to MRT:

- a. "Is there any fault in cognitive valuation compromising the perception of the full spectrum of PSPs related to this condition?" If no, proceed to the next question. If yes, proceed to the following sub-menu:

- i. "Is any level of the ACS aware of correct cognitive valuation with regard to this?" If yes, proceed to the next question.
- ii. "Would it be of benefit to treat with the intention of making all levels of the ACS aware of correct cognitive valuation in this regard?" If yes, treat for this statement, check for correction, and proceed to the next question.
- iii. "Would it be of benefit to treat with the intention of correcting all faults in cognitive valuation with regard to this?" If yes, treat for this statement, check for correction, and proceed to the next question.

- b. "With regard to the number of active, inactive and latent PSPs is the number 10 to the Xⁿ?" To quantify PSPs start with X=10 and work up by multiples of 10 (next number in this series is 100, then 1000) until

you get a "no". Then cut the previous interval by halves until you arrive at a number that tests affirmative. If you first cut the previous interval in half, and this was too low, go up by half of the interval toward the number that first gave you a "no" until you arrive at the correct number. Accuracy to the whole number at the power level you are checking is adequate. This is because in doing a bracket query, and in establishing over and under limits to this number the ACS has necessarily quantified the PSPs. It is seldom necessary to spend the time to narrow this down further.

- c. "Would it be of benefit at this time to treat with the intention of making all levels of the ACS fully aware of the identity and existence of these PSPs, that they are producing harmful behavior, and that they must be disorganized to restore normal function?" If yes, treat for this statement, recheck for correction, and proceed to the next question.
4. "Is there any fault in the tagging of afferent stimuli relating to the perception of this condition?" If no proceed to the next question. If yes proceed to the following sub-menu:
- a. "Is this afferent specific?" If no, the fault is global and involves all SEO afferents, so proceed to the next question. If yes (afferent specific), proceed to the following sub-menu:
- If there is a fault in the tagging of an SEO afferent when the CNS receives the afferent for processing the result may produce fantastic symptoms. A stretch

receptor of fascia, perineurium, or other tissue may be the subject of inappropriate tagging and this may produce such robust paresthesia that a disk lesion might be expected; yet, correction of the tagging fault may produce instantaneous resolution of the apparent sensory deficit. Always check closely for tagging faults when treating the SMP. MRT query to find the appropriate tissue and the particular afferent of that tissue that is the subject of inappropriate tagging, and proceed to the following question. (eg. There may be pain in an area due to the inappropriate tagging of the sensory stretch afferent from fascia tissue; meaning that fascial stretch afferent data is being improperly interpreted as pain.) Corrective statements would then be made appropriate to the indicated specific tissue(s) and the afferent(s) of involved tissues. If there were several such faults, each could be identified in sequence and the ACS asked, "Can you register this fault?". Once all such faults had been identified they could collectively be the subject of the treatment statements that follow. This specificity in identifying tagging faults simply helps the ACS identify the problem areas to be addressed.

- b. **"Are all levels of the autonomic control system fully aware of appropriate tagging protocol for the indicated stimuli?"** If yes, skip to next question. If no, proceed to the following sub-menu:
 - i. **"Is any level of the ACS fully aware of appropriate tagging protocol for the indicated stimuli?"**
 - ii. **"Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of appropriate tagging protocol for these stimuli?"** If yes, treat

spinal points with breathing cycles, confirm correction, and proceed to the next question.

- c. **"Are inappropriate tagging processes relative to the indicated stimuli occurring at (check for the involved nervous system site which will usually be amygdala, basal ganglia, or reticular activating system)?"** If yes, proceed to the following sub-menu:
 - i. **"Would it be of benefit at this time to treat with the intention of correcting all inappropriate tagging of afferent stimuli occurring at (specified site)?"** If yes, treat for this statement, confirm the correction, and proceed to the next question.
5. **"Is there a fault in any sensory end organ (SEO) contributing to this condition?"** If no, go to the next question. If yes, go to the following sub-menu:
 - a. MRT query for the indicated tissue and sensory end organ. Be sure to investigate structures supportive to the tissues that are registering the problem. (eg. check structures associated with the vasculature of the inner ear when there is a problem with hearing.) Check deep, as well as superficial structures, (eg. disc annulus pain/stretch receptors with back pain.) If checking visceral function/complaint, think through the anatomy that may be contributing to the condition: (eg. muscular layers, capsules of viscera, fascia supporting the structure, etc.) Study and memorize human anatomy/physiology until you have sufficient clarity of understanding to proceed through this pathway with ease.

- b. MRT query for inappropriate high/low threshold of sensitivity. For example: "Regarding the fascial stretch receptor, is this receptor set at an **inappropriately high/low threshold of sensitivity?**"
- c. MRT query for the presence of inappropriate CNS level facilitation, or inhibition of the afferent from this sensory end organ. For example: "With regard to (the indicated SEO) is its afferent being **inappropriately facilitated, or inhibited?**"
- d. MRT query for the CNS anatomical site of inappropriate facilitation, or inhibition of the afferent.
 - i. The vast majority of instances will reveal that the CNS site is the thalamus, hypothalamus, or hippocampus. If not, consider the amygdala as a next likely choice.
 - ii. MRT query from the general to specific to find particular CNS processing sites.. Eg. CNS - Midbrain nuclei – Thalamus. Generally, you will find that when any tissue sensory end organ is being inappropriately facilitated, or inhibited that this is occurring at the thalamus, hypothalamus, or hippocampus; and sometimes the reticular formation. Less frequently, you will find a cortical level of involvement.
- e. Continue finding SEO faults and associated faults in the CNS processing of each SEO. Correct each fault with the following corrective statement: "Would it be of benefit to treat at this time with

- f. **Stacking of sensory end organ corrections:** It is possible in most cases to simply go through the MRT procedure to identify all sensory end organ faults, and the attendant levels of inappropriate CNS facilitation, or inhibition thereby accumulating a catalogue of corrections to be made by the patient's ACS. After each such fault is determined ask, "Can you register this fault?" If the ACS indicates it is able to register a series of such faults then you may continue until all sensory end organ fault patterns have been identified. At that point the corrective statement is made. eg. "Would it be of benefit at this time to treat with the intention of resetting all indicated sensory end organs to optimal sensitivity levels, and to stop all inappropriate facilitation and inhibition at the indicated CNS processing areas." This is not a procedure for beginners, and may increase inaccuracy of treatment in the NMT neophyte. Once you have demonstrated consistent efficacy in performing the SMP, implementing this shortcut will save time.
- g. Once the sensory end organ path testis clear to the semantic query, the process can be repeated if necessary for greater specificity. The operator will use his/her hand, or have the patient use his/her hand to isolated specific area during the query process. The hand may apply

pressure to further isolate, stimulate, activate, or specify a particular tissue and sensor.

6. "Is there any fault in central nervous system processing causing, or contributing to this condition?" If no, proceed to the following question. If yes, proceed to the following sub-menu:

- h. Placing the patient in a position that stresses particular tissues during the query process can further enhance the process of investigating sensory end organs. Attempt to MRT in this stressed position. You may even wish to attempt to treat with the area placed in a stressed position.
- i. A further enhancement to the investigation of sensory end organ status may be performed at any point in examination. It may be done when SEO function is first assessed, after going through the SEO correction step, or after the entire SMP is completed and symptoms are still noted. Have the patient get up, and move about the room with particular attention to moving in a way that engages the tissues that are being investigated. When the patient moves about, the nervous system has an opportunity to reevaluate sensory end organ status and further improvement may be found at this point retreating some of the same SEO's. The patient, at this stage of the treatment, may also be able to move further through a range of motion and in so doing engage other types of sensory end organs, or more of the same type of sensory end organ that were not triggered in earlier stages of the examination. This provides for an opportunity to make a deeper correction at the sensory end organ level.

- a. MRT query to see if there is a fault in the processing of an afferent from the body, an efferent to the body, or a fault in intra-CNS traffic. Faults in intra-CNS traffic will be the most common and extensive functional error in the category of CNS processing.
- i. If this is a fault of the processing of an afferent/efferent determine if there is inappropriate facilitation, or inhibition (and check for excess, or deficiency of either process), the anatomical site of this fault (nearly always at thalamus, hypothalamus, or hippocampus; but possibly at cortical, or other areas), and treat to correct this. This is found far less often than intra-CNS processing faults. Be aware that such faults may apply to the various SEOs of the tissue, as well as motor efferents. *It may also apply to motor efferents to endocrine tissue, eg, motor efferents from the hypothalamus to the anterior pituitary – often of great importance in hormonal issues.*
- ii. If this is a fault of intra-CNS processing, determine the origin/target sites if the issue is facilitation/inhibition of a pathway between two processing areas (for example, facilitation from reticular formation to hypothalamus – a common pattern).

Intra-CNS faults involving sensory perceptions from peripheral

tissues often involve a pathway with its origin at the reticular activating system and a target of T, HT, or HC – simply as a result of the fact that the nervous system embryologically began as a “neural tube” which at the CNS level developed various foldings, invaginations, and projections. Begin the investigation by going from the general to the specific in your query: eg., cortex-frontal cortex-more specific site within frontal cortex, or midbrain nucleus-hypothalamus. Determine if there is more than one target site. Determine if there is inappropriate facilitation/inhibition (and check for excess, or deficiency of either process), or routing and treat to correct this. If there is an error in routing, check to see that all areas of the autonomic control system are fully aware of correct routing for this traffic. Determine if there is simply inappropriate facilitation/inhibition relative to some specific function occurring at a particular CNS Processing nucleus.

iii. Common sites of intra-CNS processing for sensory issues include origin at RAS, and target of T, HT, or HC. Secondary path may exist in which the target is now the origin, and participates with another processing site. This may be another forebrain nucleus eg, T – HC; or it may involve a path from a forebrain nucleus to one of the cortical areas.

iv. If the presenting problem is not primarily a sensory issue then the intra-CNS issues may not involve the RAS, and may be centered more on paths between various cortical areas, and

between cortical areas and forebrain nuclei. Consider the possibility of cerebellar involvement as it is considered a repository of templating of much motor processing.

- v. Repeat this process until all intra-CNS processing tests clear.
7. “Is there any fault in sympathetic, or parasympathetic processing causing, or contributing to this condition?” If no, proceed to following question. If yes, determine whether sympathetic, or parasympathetic and proceed to the following sub-menu:
 - a. Determine whether this is a fault in sympathetic thoracolumbar, or cervical ganglia outflow, or crano-sacral parasympathetic outflow. Think through the type of problem to see what is reasonable. If the patient has chronic diarrhea, consider facilitation within pelvic parasympathetic ganglia. If there is migrainous headache, consider a fault in cervical sympathetic ganglia innervation to vasculature to the brain.
 - b. Determine whether this is a problem of facilitation, or inhibition (check for excess, or deficiency of either process).
 - c. Determine whether this is a problem primary to the indicated autonomic ganglia, or is the result of a higher-level neurological dysfunction. Generally this tests as primary to the autonomic ganglia involved. If it is the result of higher CNS influences construct a corrective statement to resolve that influence, eg, “Would it be of

- benefit to treat at this time with the intention of stopping all inappropriate facilitation of sacral parasympathetic ganglia at the hypothalamic (HT) level."**
- d. Construct an appropriate treatment statement and correct for this, recheck for successful correction, and proceed to the next question. For example, "Would it be of benefit to stop all facilitation of sympathetic efferents from the stellate ganglia (or, a more general statement referencing any involved sympathetic ganglia) to muscle wall of cerebral vasculature structures consistent with optimal function?"

8. "Is there any fault in motor processing causing, or contributing to this condition?" If no, proceed to the next question. If yes, proceed to the following submenu:

- a. MRT query to see if this fault involves inappropriate facilitation/inhibition (Check for excess, or deficiency of either process).
- b. MRT query for the CNS anatomical site of this fault.
- c. MRT query to see if this involves motor efferents to muscles in the area of complaint, whether it is global to these muscles, or specific to agonists/antagonists.
9. "Is there any fault in a motor end organ causing, or contributing to this condition?" If no, proceed to the next question. If yes, proceed to the following submenu:
- a. MRT query to determine if this is relative to a motor end organ of muscle, endocrine gland, exocrine gland or secretory skin structure. If this involves muscle determine if it is muscle in the area of complaint, if it is global, or specific to agonist/antagonist.
- b. MRT query to determine if the motor end organ is set at an inappropriately high/low threshold of stimulation.
- c. Treat with an appropriately structured corrective command specific to your findings. For example, "Would it be of benefit to treat at this time with the intention of resetting the indicated motor end organ of dermal

sweat gland to a high threshold of stimulation consistent with optimal function?"

d. Repeat this process until all motor end organ function tests clear.

10. "Is there any other fault in autonomic regulation causing, or contributing to this condition?" If yes, MRT query as appropriate to determine what this is, and treat appropriately.

A Special Note On Finding PSPs

Don't project your expectations for the number of PSPs you expect to find. To do so is to stop down your field of view in a way that will influence the quantification of PSPs causing you to miss many. It is much like focusing your eyes on a flower that is close to you and missing the fact that an elephant is marching across the field of vision in the background.

ALLERGY PATHWAY (AP)

CORRECT COGNITIVE VALUATION - AWARE ALL ASPECTS OF HEALTH ?	1 ACS AWARE OF ALL SUBSTANCES IN EXPOSURE HISTORY ACTING AS ALLERGIC TRIGGERS ? ANY / ALL ACS EXOGENOUS / ENDOGENOUS SPECIFIC / CATEGORICAL <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>
ACS AWARE OPTIMAL TEMPLATE FOR PHYSICAL, MENTAL, EMOTIONAL HEALTH ?	
2 PERNICIOUS SYNAPTIC PATTERNS ? TX: TO DISORGANIZE PSPs	2 PERNICIOUS SYNAPTIC PATTERNS ? TX: TO DISORGANIZE PSPs
3 ACS AWARE EXISTANCE, IDENTITY ? (Endo AP - LOCATION)	3 ACS AWARE EXISTANCE, IDENTITY ? (Endo AP - LOCATION)
	ANY LEVEL? TX: ALL LEVELS AWARE
4 FAULT IN TAGGING OF AFFERENT STIMULI RE: REFERENCED ALLERGENS ?	4 FAULT IN TAGGING OF AFFERENT STIMULI RE: REFERENCED ALLERGENS ? PATH SPECIFIC VS GLOBAL....IDENTIFY ACS AWARE APPROPRIATE TAGGING ? ANY LEVEL? TX: ALL LEVELS AWARE INAPPROPRIATE TAG AT ANS SITE? IDENTIFY - TX: CORRECT TAG PROCESS
5 ACS AWARE DISTINCTION BETWEEN BODY TISSUE AND ALLERGEN ?	5 ACS AWARE DISTINCTION BETWEEN BODY TISSUE AND ALLERGEN ? ANY LEVEL? TX: ALL LEVELS AWARE
6 CROSSOVER AUTOIMMUNE RESPONSE ?	6 CROSSOVER AUTOIMMUNE RESPONSE ?
	CAUSE: CROSSLINKED DATA IN CNS SITE ? IDENTIFY SITE (RAS, BG, A) AWARE INFORMATION TO CORRECT ? TX: AWARE ALL LEVELS TX: CORRECT CROSSLINK DATA
EXOGENOUS <input checked="" type="checkbox"/> ENDOGENOUS	EXOGENOUS <input checked="" type="checkbox"/> ENDOGENOUS
INHALANT	BODY TISSUE
INGESTANT	BODY CHEMICAL
CONTACTANT	BODY BREAKDOWN PRODUCT
INJECTANT	
	* GLOBAL, OR SPECIFY SUBSTANCES, EVENTS, TIMES, PLACES, OR CIRCUMSTANCES
	RECHECK PRN (TSP?)
	8 PSPs

10. NMT: The Allergy Pathway (AP)

1. "With regard to the referenced symptoms/condition, are there (Or, in the clear, "Is any level of the ACS aware of...") any inhalant, ingestant, contactant, or injectant substances (**exogenous allergens**) in your exposure history which are capable of behaving as allergic triggers? ("...causing or contributing to this condition?") Always check, "With regard to the referenced symptoms/condition, are there (Or, in the clear, "Is any level of the ACS aware of..."') any body tissues, body chemicals, or breakdown products of the body (**endogenous allergens**) which are capable of behaving as allergic triggers ("...causing or contributing to this condition?") If no, proceed to investigate other pathways. If yes, proceed to next question.

Note that, clinically, it is usually preferable to treat exogenous and endogenous allergens at separate visits. Conditions may exist in which it is preferable to treat a specified allergen trigger(s), or class of allergens on a particular visit, rather than treating with broad blanket statements. In some instances treating with provocation using an actual substance may be required. The principle is always the same in NMT allergy treatment.

It may be that a particular patient has a more complete, and unevenful clearing of allergens by addressing a narrower spectrum of allergens at a particular treatment visit.

Treating allergies globally as we do in NMT has the advantage of greatly shortening the treatment process as compared to methods that attempt to identify and treat one allergen at a time. This method also has the advantage that we can postulate a

blanket reference for the ACS to consider in identifying allergens to be treated – all of which it must have knowledge of in order to be able to mount an allergic response. However, be aware of differences in ACS capacity, from one patient to the next, with respect to the ability to inventory and hold in awareness a large catalogue of allergenic substances at one time. Various patients will also have different numbers of relevant triggering substances, suggesting a reason we may find on follow-up treatment that some percentage of allergens did not clear on the initial NMT allergy treatment. These factors may result to some degree in incomplete clearing of inappropriate tagging issues, or crossover autoimmune issues, thus leaving some percentage of the original offending agents still reactive. Subsequent treatment in patients with incomplete response must determine and correct for these.

2. "Are there active, inactive, or latent PSPs associated with this complaint?" If no, proceed to the next question. If yes, proceed to the following sub-menu. Be aware that PSP issues may present at any fork in a clinical pathway and this is suggested by inappropriate responses to MRT:

- a. "Is there any fault in cognitive valuation compromising the perception of the full spectrum of PSPs related to this condition?" If no, proceed to the next question. If yes, proceed to the following sub-menu:
 - i. "Is any level of the ACS aware of correct cognitive valuation with regard to this?" If yes, proceed to the next question.

ii. "Would it be of benefit to treat with the intention of making all levels of the ACS aware of correct cognitive valuation in this regard?" If yes, treat for this statement, check for correction, and proceed to the next question.

iii. "Would it be of benefit to treat with the intention of correcting all faults in cognitive valuation with regard to this?" If yes, treat for this statement, check for correction, and proceed to the next question.

b. "With regard to the number of active, inactive and latent PSPs is the number 10 to the X⁶?" To quantify PSPs, start with X=10 and work up by multiples of 10 (next number in this series is 100, then 1000) until you get a "no". Then cut the previous interval by halves until you arrive at a number that tests affirmative. If you first cut the previous interval in half, and this was too low, go up by half of the interval toward the number that first gave you a "no" until you arrive at the correct number. Accuracy to the whole number at the power level you are checking is adequate. This is because in doing a bracket query, and in establishing over and under limits to this number the ACS has necessarily quantified the PSPs. It is seldom necessary to spend the time to narrow this down further.

c. "Would it be of benefit at this time to treat with the intention of making all levels of the ACS fully aware of the identity and existence of these PSPs, that they are producing harmful behavior, and that they must be disorganized to restore normal function?" If

yes, treat for this statement, recheck for correction, and proceed to the next question.

3. "Are all levels of the ACS fully aware of the identity and existence of, a) all exogenous allergens (inhalant, ingestant, contactant, or injectant substances), or b) all endogenous allergens (any body tissue, body chemical, or breakdown product of the body)?" Alternatively, or additionally we may wish to specify particular substances of interest (or circumstances, events, places, or times) to see if the ACS is specifically aware of allergy phenomena associated with the named substance. We may reference exposure to substances at a particular time, or event, with or without naming a specific substance. If yes, proceed to question #4. If no, proceed to the following sub-menu:
 - a. "Is any level of the ACS fully aware of the existence and identity of all referenced allergens?" If yes, proceed with next question. If no, investigate the reason for this.
 - b. "Is the immune system fully aware of the existence and identity of all referenced allergens?" If yes, or no, proceed to the next question.
 - c. "Would it be of benefit to treat with the intention of making all levels of the ACS fully aware of the existence and identity of all referenced allergens, and to communicate this information completely, and immediately to the immune system?" If yes, treat for this command, recheck for correction, and proceed to the next question.

4. "Is there any fault in the tagging of afferent stimuli specific to any, or all referenced allergenic triggers in your exposure history?" Alternatively, this may be asked relative to a particular exposure. If no, proceed to question #6. If yes, proceed to the following sub-menu:

a. "Is this fault afferent path specific?" If not, the fault is global (most commonly). Conceivably, the fault may be specific to a given afferent, eg. chemoreceptor of digestive mucosa. So, proceed to the next question. If yes, proceed to the following sub-menu:

i. MRT query for the appropriate tissue(s) and afferent(s), eg. respiratory mucosa chemoreceptor, and proceed to the following question.

b. "Are all levels of the ACS fully aware of appropriate tagging protocol for these stimuli?" If yes, proceed to the next question. If no, proceed to the following sub-menu:

i. "Is any level of the ACS fully aware of appropriate tagging protocol for these stimuli?" If yes, go to the following question.
ii. "Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of appropriate tagging protocol for all allergen triggers?" If yes, treat spinal points with breathing cycles, confirm correction, and proceed to the next question.

c. "Is inappropriate tagging of afferent stimuli relative to referenced allergenic triggers occurring at (specify brain areas – this is usually amygdala and/or basal ganglia, and sometimes reticular formation, or other levels)?" If yes, proceed to the following sub-menu:

i. "Would it be of benefit at this time to treat with the intention of correcting all inappropriate tagging processes for referenced allergenic triggers occurring at (specified brain site/s)?" Perform treatment, recheck for correction, and proceed to the next question.

5. "Are all levels of the ACS fully aware of the distinction between all referenced allergens and all body tissues?" If yes, proceed to the next question. If no, proceed to the following sub-menu:

a. "Is any level of the autonomic control system fully aware of the distinction between all referenced allergens, and all body tissues?" If no, investigate possible reasons for this. If yes, proceed to next question.

b. "Would it be of benefit to treat at this time with the intention of causing all levels of the ACS to be fully aware of the distinction between all referenced allergens, and all body tissues?" Perform treatment, recheck for correction, and proceed to the next question.

6. "Is there any crossover autoimmune response at this time between any allergen and any body tissue?" If no, proceed to the next question. If yes, proceed to the following sub-menu:

- a. "Is this crossover autoimmune reaction caused by a cross linking of data at the (reticular activating system, basal ganglia, and occasionally amygdala)?" If yes, proceed to the next question. If no, check for any other location this may be occurring.

b. "Do all levels of the ACS have sufficient information to correct this cross-linked data?" If yes, proceed to the next question. If no, proceed to the following sub-menu:

- i. "Does any level of the ACS have sufficient information to correct this cross-linked data?" If yes, proceed to the next question. If no, investigate any possible correction for this.
- ii. "Would it be of benefit at this time to treat with the intent of making all levels of the ACS fully aware of the information necessary to correct the indicated cross linking?" Treat for this statement, recheck, and proceed to next question.
- c. "Would it be of benefit to treat at this time with the intention of correcting all cross-linked data in the (specified brain site) causing, or contributing to this crossover autoimmune response between referenced allergens, and all body tissues?" If yes, treat spinal points with breathing cycles, recheck for correction, and proceed to the next

question. If no, check for possible reasons such as MRT, PSPs, cognitive, etc.

7. Consider faults in elements of the Sensory/Motor Pathway for the allergy patient. The allergy condition has produced recurrent stimulation of sensors in the effected tissues. This results in inappropriate sensor settings, facilitation/inhibition issues that are amenable to SMP intervention. SMP treatment will be necessary to resolve all allergy symptoms, even when the AP has otherwise been cleared.

Use the MRT investigatory tools to determine any sensory/motor fault influencing allergy symptoms.

The most frequent finding in allergy patients involves the chemoreceptors of the mucous membrane of the respiratory and/or digestive tracts. These receptors are usually set at an inappropriately low threshold of stimulation. This may be global, or allergen specific. There will usually be a CNS processing error. There will nearly always be PSPs related to experience with the allergies, perhaps with issues related to "the materials of world are a threat, or corruption to the body", "not trusting the ACS to differentiate the safe from the dangerous", "resentment that survival requires one to open themselves to introduction of food and beverage", and similar concepts that can be tested semantically. Follow the Sensory/Motor Pathway to correct this aspect of allergy conditions.

8. Remember that PSPs may reproduce a real and severe set of allergy symptoms even after the patient has once reached a symptom free status should there be sufficient PSPs that arise to active levels. Recheck the AP if symptoms return assessing any component of the pathway that may prove to be incompletely

corrected after the patient is reexposed to their usual environment. Some patients may experience PSP related symptom return even after the AP is otherwise completely clear.

Provocative challenges in allergy treatment.

It may be desirable to treat with provocative challenges during the course of treatment. In such cases, treat the allergy pathway in the usual way. Then introduce the scent of the substance(s), for example peanut, the patient is to be challenged with. Go through the protocol again to see if this challenge reveals; awareness of the presence of an allergen, a fault in afferent tagging, inability to distinguish allergen from body tissue, or a crossover response. Retreat as needed to correct any faults indicated and recheck. A higher level of provocation can be achieved at the next step by rubbing some of the substance on the outer lip, and going through the protocol again checking for any fault brought to the surface of awareness, and treating/rechecking as necessary. Finally, the patient may be given a small sample to chew in the mouth, perhaps without swallowing the material, and again go through the protocol. *Whenever provocative testing is done in an office setting, the patient should have with them and be ready to use any medications necessary for them in the past when exposed to the provocative item in question.*

Provocative testing should never be performed without adequate safeguards in place at the time of treatment to deal with any adverse allergic reaction the patient might have. This may mean the practitioner needs to work cooperatively with the patient's primary care provider, or other health care professional.

Rechecking the allergy, or Multiple Chemical Sensitivity (MCS) patient.

When the allergy pathway is cleared, and rechecks show that it has stayed clear, symptoms are usually absent. It is not unusual to find that after the initial clearing

process, the patient may return with some degree of symptoms, some amount of the time. It is essential that the allergy patient be seen in followup after initial treatment, and that the patient understand that NMT treatment for allergy involves correcting a regulatory chain within the nervous system. *That regulatory chain is the allergy pathway itself, and each step of the allergy pathway represents a link in that chain, any fault in the pathway a broken link in the control chain, and consequently an opportunity for allergy symptoms to be perpetuated.* A chain with four broken links will not be functional with durable correction to three of those links. All the links must be sound for the chain to work. So, it is essential that follow-up be performed with such patients until a durable correction to every link in the control chain has been proven. This will be easier to achieve with some patients, and more difficult with others due to differences from patient-to-patient in the complexity of their condition, and completely unrelated to the efficacy of the NMT protocols.

Certain areas are commonly found to demonstrate inadequate correction on re-examination after the initial treatment. Any of the following problems may result in such situations as the patient who is 100% improved 80% of the time in an otherwise stable allergenic environment:

- Some percent of the originally noted errors in the tagging of afferent stimuli specific to allergy triggers may be found. MRT may be performed to compare the number of allergenic triggers being inappropriately tagged on a follow-up visit as a percentage of the number present when treatment began. Any two points in the course of treatment may be similarly compared with MRT.

- Some percent of the originally noted cross-linked data may persist, and contribute to autoimmune crossover responses between allergen and body tissue. MRT may be used to quantify this.

• PSPs may reproduce symptoms in an otherwise clean pathway. PSPs are checked during the initial treatment and corrected. It is never found that the same PSPs return. It is commonly found that the patient may bring to a level of awareness PSPs that were not apparent during the previous treatment. Experience subsequent to that previous visit may cause such PSPs to rise to a level of awareness.

• Be aware of the strong possibility that in long term allergy patients there may be an infectious agent also influencing the tissues. Respiratory allergy patients commonly have chronic infection, many times the result of cell wall deficient pathogens (CWDs) in the sinuses. This may also be true in the case of GI allergies.

The immunological chaos involved in tissues subjected to allergy conditions may result in sensitization of immune system cells to the body's own tissues, chemicals, or breakdown products. Always check for the presence of an endogenous allergen (EndoAP), and check the Toxin Pathway.

Remember PSP's!!!

11. Cell Wall Deficient Forms

Stealth Pathogens

This document will serve as an overview of the book by Lida H. Mattman, PhD. which is published by CRC Press, 2000. It is recommended that any practitioner utilizing NMT in the treatment of chronic degenerative diseases, and the many other conditions caused by these "stealth pathogens" closely read this work. Not all pathogens that will be the subject of treatment in NMT are cell wall deficient forms. Some may be viruses, some bacteria of conventional morphology, parasites, or other infectious agent types. Whenever a pathogen is treated in NMT, it will be treated because there is some compromise in the body's ability to recognize and eliminate the infectious agent, and/or because the pathogen is provoking an autoimmune response resulting in damage to body tissues. The accepted view in microbiology is that each species of bacteria is one simple form (coccus, bacillus, spirillum, or filament) and that these forms reproduce only by cell division. This view is contrary to published data from a variety of reliable researchers for over 150 years. Mattman delves into the practical difficulties of studying variant forms of infectious agents, and the resulting disincentive to pursue such lines of investigation in the world of scientific research all contributing to inaccurate dogma of mainstream microbiology.

1) History Of Cell Wall Deficient Forms:

- a) Cell wall deficient forms have been reported since the nineteenth century.
Wilhelm Zopf, 1892; Ernst Almquist, 1881; Koch, 1881; Maffucci, 1892.
- b) Lohnis in "Studies Of The Life Cycles Of The Bacteria", 1921, reviewed 1909 articles written between 1838 and 1918 describing atypical bacterial forms.

- c) Reasons for mainline microbiology to ignore cell wall deficient forms include the extreme difficulty in culturing these forms, and difficulties in staining such forms for study.
- d) Cell wall deficient forms of bacteria are referred to as "L-forms" as named by Emmy Kleinbecker-Nobel after her Lister Institute. A generic term "spheroplast"

- e) The properties CWD's may include the ability to transition between classic forms, and CWD's under various environmental influences including the in vivo administration of antibiotic.
- f) Pleomorphism - the ability to change bacterial form in response to changes in environment.
- 2) Mycoplasma, rickettsia, and CWD's of bacteria and fungi are more structurally similar than different from one another. All are implicated in a wide variety of diseases.
- 3) Properties and peculiarities of CWD's
 - a) CWD's may range from highly stable small spheres to very delicate large forms.
 - b) Granular, large body stages, and mycelial stages may all revert to classical forms under appropriate conditions.
- 4) Electron microscopy:
 - a) Special laboratory procedures are required to view CWD's properly.
 - b) Electron microscopy reveals systemic changes throughout the CWD's cell as compared to classical forms.
- 5) Public health and nosocomial factors:
 - a) Water supply - may contain CWD's which produce symptoms of food poisoning eg. vibrio, shigella flexner.

- b) Fish-salmon have been vaccinated with the vaccine of an L-form of aeromonas salmonicida with superior protection to classical form-vaccine.
- c) Ground meat - CWD's are common.
- d) Butter - L-form of staphylococcus aureus
- e) Milk - L-forms of streptococcus agalactiae, staphylococcus aureus, and corynebacterium pyogenes produce mastitis in cows that persist after antibiotic treatment.
- f) Vegetables - L-forms of some human pathogens can propagate in some vegetables as they grow.
- g) Distilled water - pseudomonas L-forms may persist in distilled water and use CO₂ as of carbon source.
- h) Sterilization of surgical instruments - in 1996 study from China indicated 41% surgical instruments sterilized in disinfectant demonstrated L-forms of bacteria.
- i) Plague carrying rodents - L-forms found in twice as many subjects as classical pathogen.
- 6) Immunology:
- a) The action of antibody/complement, lysozyme, and monocyte enzymes may cause induction of CWD's in vivo. (selection, or response?)
- 7) Induction By Antibiotic, Organic Compounds, And Miscellaneous Factors:
- a) Antibiotics used to control bacteria and fungi result in CWD's either by directly causing induction, or by selecting for CWD variants in the growth media.
- b) Dyes used in microbiology may also induce or select for CWD's.
- 8) Reversion and revertants:
- a) Any L-form of bacteria maintains all cellular machinery required to revert to a classical form, and may do so has conditions change in its environment.

- These changes include changes in nutrient levels, temperatures, and the presence or absence of medications.
- b) The process of going through induction and reversion may produce variation within a species of organisms.
- 9) Septicemia and Cardiopathies:
- a) 20-30% of all negative blood cultures in patients with endocarditis, and septicemia contain CWD's staphylococci, streptococci, corynebacterium, propionibacterium, pseudomonas, streptobacillus, actinomycetes, acinetobacter, and fungi.
- 10) Intracellular Growth of CWD's:
- a) Bacteria from heavily populated areas such as the intestine, oral cavity, stand, and lymph nodes escape to parasitize circulating erythrocytes. This occurs to a minimal degree in all people, and to a heavy degree in bacteremia, kidney infection, and other diseases.
- b) Parasitism of other tissues by CWD's produce inclusion bodies in tissue cells. These may occur in tissue culture, and donor tissue resulting in contaminants.
- 11) L-forms In Thrombi:
- a) Chlamydia pneumoniae is found in coronary thrombi, pleural, and pericardial fluids.
- 12) Urinary Tract Infections:
- a) CWD's forms are implicated interstitial cystitis, cystitis, glomerulonephritis, and kidney stones.
- 13) Latency and persistence:
- a) CWD's may persist in vivo for longer periods than their classical counterparts and exist in blood, liver, gallbladder bone marrow, and peritoneal macrophages. L-forms may produce lesions characteristic of the classical bacteria.

14) Meningitis and Associated Conditions:

a) CWD's of Escherichia, Neisseria, Nocardia, Proteus, Pseudomonas,

Staphylococcus, and Streptococcus, as well as fungal CWD's have been shown meningitis before and after antibiotic therapy.

15) Rheumatic Fever And Erysipelas:

a) Streptococcal CWD's in their antigens produce damage to cardiac tissue, circulating blood, and joints in the absence of classical bacteria in laboratory culture patient's blood samples.

b) L-forms of hemolytic streptococci our presence in rheumatic fever and recurrent erysipelas.

16) Joints and Bone Disease:

a) Acute Arthritis: CWD's of gonococci, mycobacteria, clostridia, salmonella, and corynebacteria have been isolated. Joint fluid may be "sterile" (no non-CWDs).

b) Rheumatoid arthritis synovial fluid injected into checks produces joint deformities.

i) Warren et al. discuss the role of virus in rheumatoid arthritis in man and demonstrated in utero transmission.

ii) Takahashi et al. found this to be human parvovirus B19.

c) Chronic Arthritis: CWD of Propionibacterium acnes may follow original viral infection.

d) Erysipelothrix rhusiopathiae: CWD's of this bacteria are found in the arthritic joints of domestic animals, and it is noted that the arthritis worsens after the classical form of the bacteria disappears.

e) Other bacteria implicated in arthritis includes CWD's of salmonella, staphylococcus, clostridium, nisseria gonococcus, h.influenzae and s.aureus

(children), mycobacterium tuberculosis, listeria like organisms, and nocardia asteroides (dogs).

17) Mycobacterium Tuberculosis And The Atypicals:

- a) According to J L Fox in 1990, "Nearly half the world's population is infected with TB."
- b) Mycobacterium have a particular affinity for the immune suppressed patient.
- c) Mycobacterium pleomorphic forms (CWDs) have been found since the earliest days of bacteriology.

18) Sarcoidosis:

- a) Etiology is a CWD similar to that of M. tuberculosis.
- b) Produces granulomas in lung, and other tissues.

19) Leprosy:

- a) Mycobacterium leprae CWD's forms are implicated in the disease.

20) Crohn's Disease and Ulcerative Colitis:

- a) CWD of *Pseudomonas maltophilia* implicated.
- b) CWD of *Streptococcus fecalis* produces inflammatory bowel disease, whereas the classical form is innocuous.
- c) CWD of mycobacterium (m.) paratuberculosis leading candidate for cause of CD.

- d) Other CWD's in Crohn's disease and ulcerative colitis include: m. chelonei, m. fortuitum, m. avium, and m. kansasii.

21) Characteristic of Filtrable Forms:

- a) Particles of fungi, and bacteria produced during the L cycle may pass through 45 micron (mu,) filters, and some may pass through 20 mu. filters and still have the ability to revert to classical forms. (Classical forms are captured by these filters)

22) Spirochetae:

a) Lyme disease
i) *Borrelia burgdorferi* CWD's of these bacteria have been found to parasitize RBCs.

ii) Implicated in Lou Gehrig's disease (ALS). All eighteen cases of this disease cultured by Mattman demonstrate a spirochete that reacts with the B. burgdorferi antibody. If not identical it is close.

b) Multiple sclerosis

i) Spirocheta myelophora is implicated. In 60 cases of MS a Borrelia - like organism has been isolated from spinal fluid.

23) Toxin Formation:

a) CWD's generally form lower concentrations of endotoxins. This effect may be offset by the tendency of CWD's to lyse spontaneously in tissues suddenly releasing very high levels of toxins.

24) Fungi:

a) CWD's of *C. albicans*, *Blastomyces dermatitidis*, and *Histoplasma capsulatum* have been demonstrated in human infections.

b) Poorly growing fungi may be stimulated to have a growth by some antibiotics can simultaneously produce CWD forms.

c) CWD's of fungi may propagate within plants.

25) Sensitivity To Antimicrobial Agents:

a) CWD's may be resistant to some antimicrobials which are lethal for classical forms.

b) CWD's may be inhibited by antimicrobials which are tolerated by classical forms.

c) Antibiotic therapy should avoid penicillins (inhibit cell wall synthesis) in preference to erythromycin, chloramphenicol, and sometimes tetracycline.

26) Miscellaneous Disease And Malfunctions:

a) Pneumonia:
i) L-forms of pneumococci are routinely found in the blood of pneumonia patients.

ii) Uveitis - Pleurisy and interstitial lung disease in mice was produced by introduction of L-forms from human uveitis (anterior compartment of eye).

b) Chronic Bronchitis:

i) Associated with spheroplasts of *H. influenzae*

c) Pleurisy and chronic empyema:

i) CWD's of microaerophilic streptococci in mycobacterium tuberculosis have been demonstrated in a high percentage of cases.

d) Ocular Disease:

i) Anterior uveitis - CWD's, some suggestive of fungi have been isolated and high percentage of cases.

ii) CWD's have been isolated from 2-10% of leukocytes in cases of human uveitis.

iii) Jacobs and Golden CWD's in 30% of corneal ulcers, 14% of conjunctivitis, and 40% of dry eye syndrome.

e) Chronic Sinusitis:

i) CWD's are suggested cases of sinusitis to the influence of lysozyme a nasal mucous secretions.

f) Tonsillitis:

i) L-forms streptococcus mitis group are implicated.

g) Whipple's Disease:

i) CWD's of streptococcus and/or *H. influenzae* type E have been demonstrated.

- ii) The disease results in a once often fatal form degeneration in the small intestine, now treated successfully with antibiotic regimens.
 - iii) Myocarditis may occur simultaneously.
 - h) Aphous Ulcers, Canker Sores, Behcet's Syndrome:
 - i) Behcet's syndrome involves canker sore like lesions in oral, genital, and/or ocular areas. 50% of cases also suffered joint changes. Diffuse encephalitis and ulcerative bowel disease may also result.
 - ii) CWD's of streptococci have been demonstrated.
 - iii) The actual damage in this syndrome results from immune reactions.
 - iv) Chronic foci may feed antigens into the circulation.
 - v) Canker sores are associated with CWD's of *Streptococcus sanguis*.
 - i) Otitis Media:
 - i) L-forms of staphylococci produce a chronic form of secretory otitis media.
 - j) Systemic Lupus Erythematosis:
 - i) CWD's in coccoid for more implicated.
 - k) L-forms In Dentistry:
 - i) L-forms have been shown filtrable from root canal material. 50% of root canal material tested demonstrated endotoxins of bacteria.
 - l) Human sterility:
 - i) L-form of mycoplasma ureaplasma may be involved.
- 27) Malignancy And Infectious Agents:
- a) Tumors may be triggered frequently by viruses, but also by bacteria and fungi. eg. Aflatoxin
 - b) Tonsillectomy increases the chances of Hodgkin's disease by 300% by the removal of a protective barrier to infection by suspected L-forms, perhaps *corynebacterium*.
 - c) Gastric adenocarcinoma – correlated to *H. pylori*.

12. Other Infectious Agents of Interest

Prions

Definition: Prions are modified forms of normal cellular protein identified as PrP^c (cellular). They do not contain genomic material, or nucleic acid components of any kind. They also do not respond to antiviral medications. The most common source is the membrane of neurological cells, specifically the glycoinositol phospholipid anchor. The protein is believed to be involved in synaptic function. One modified form of this protein is found in the disease of animals known as scrapie and for that reason is distinguished from PrP^c as PrP^{Sc}. This mutant protein accumulates in vesicles of the cytoplasm of those diseased.

One theory of the disease process is that when prions representing an altered version of PrP^c (eg. PrP^{Sc}) are introduced to the host, that it induces a conversion of PrP^c to PrP^{Sc}. The nature of the process is speculated to be either chemical, or conformational in nature. If the process is conformational, perhaps representing a change in protein folding of varied from the normal configuration it suggests, the condition may be responsive to NMT treatment utilizing the morphic field pathway, and particularly the possibility that the PrP^{Sc} induces an energetic isolation of the protein from the usual morphogenic fields of the body resulting in a regional field fault. The NMT infectious agent pathway may also be of value in helping the immune system distinguish the prion from normal proteins in which case similar defenses as those to virus may be recruited.

Prion Diseases

Prions produce sponge-like lesions, hence the diseases are classified as spongiform encephalopathies. Examples in mammals of such disease include Scrapie in sheep, TME (transmissible mink encephalopathy) in mink, CWD (chronic wasting disease) in muledeer and elk, and BSE (bovine spongiform encephalopathy) or mad cow disease in cows. Humans prion diseases include CJD; Creutzfeld-Jacob Disease, GSS; Gerstmann-Straussler-Scheinker syndrome, FFI: Fatal Familial Insomnia, Kuru associated with the practice of ritualistic cannibalism, and Alpers Syndrome.

CJD incidence is calculated to be 1 per million per year, and GSS much rarer at about 2% of the rate of CJD. Although the frequency of CJD infection found in deceased humans is estimated at 1/10,000 misdiagnosis of CJD may mean that the actual incidence is much higher.

Post-mortem changes include non-inflammatory lesions, vacuoles, amyloid protein deposits and astrogliosis. This destruction makes comprehensible the multiple symptoms in living patients that includes progressive loss of mental and motor faculties, tissue wasting, and eventually death.

GSS usually occurs in a patient's 40's to 50's and develops somewhat more slowly than CJD. FFI causes brain atrophy limited to the thalamus, hence its peculiar presentation of incurable insomnia. Alpers syndrome is a general term for prion diseases in infants.

The process of infection appears to involve ingestion and the processing of prions in the Peyer's patches of the gut, lymphoid tissue, which, like tonsil and adenoid tissue, processes microorganisms and introduces them to the immune system. By this route the prions eventually reach the brain.

Recommended reading - *Fatal Protein: The Story of CJD, BSE and Other Prion Diseases* by Rosalind Ridley, Harry Baker; *The Pathological Protein: Mad Cow, Chronic Wasting, and Other Dearly Prion Diseases* by Philip Yam; and *Deadly Feasts: The "Prion" Controversy and the Public's Health* by Richard Rhodes.

Nanobacteria

Nanobacteria is an abbreviated term for the genus and species Nanobacterium

Sanguineum. The term derives from the small size of the organism and its presence in the blood and vascular tissues. These are the smallest known self-replicating bacterial forms and range from 20-200 nanometers. A nanometer is one billionth of a meter, or the size of 10 hydrogen atoms side-by-side. One property of this

organism is its ability to organize a calcific shell around itself for protection.

Pharmaceutical strategies to control it consist only of ethylenediamine tetra-acetic acid (EDTA) to compromise the calcific shell and tetracycline following the EDTA.

The role of this organism in virtually all atherosclerotic changes in the circulatory system, and in kidney disease due to tubule damage is considered by many researchers to be well established. Links to articles discussing this are provided:

<http://www.heartfixer.com/Kidney%20stones.htm>

<http://www.heartfixer.com/indexNB.htm>

Contrasting opinion on nanobacteria: <http://drcranton.com/nanobacteria.htm>

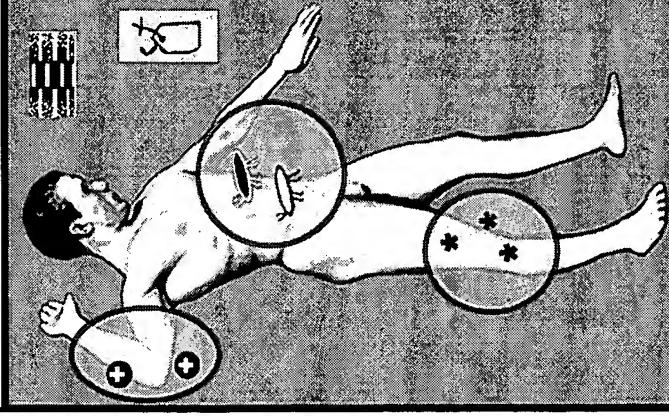
and, a rebuttal from the discoverer of nanobacteria:

<http://www.nanobaclabs.com/Files/Newsletter/KajanderTreatise.pdf>

Many literature references are available regarding the role of nanobacteria in diseases of the cardiovascular system, urinary tract, autoimmune conditions such as scleroderma and arthritis, and nervous system at the following web address:

INFECTIOUS AGENT PATHWAY (IAP)

EVALUATE SPECIFIC SYSTEMS	CORRECT COGNITIVE VALUATION - AWARE ALL ASPECTS HEALTH ?																																		
URINARY TRACT	BLOOD	A.C.S. AWARE OPTIMAL TEMPLATE FOR PHYSICAL, MENTAL, EMOTIONAL HEALTH ?																																	
ENDOCRINE	NERVOUS	1 ACS AWARE PERCEPTION INFECTIOUS AGENTS ?																																	
REPRODUCTIVE	OSSEOUS	SYMPTOM SPECIFIC / SYSTEM SPECIFIC																																	
ORAL CAVITY	EYES	2 PERNICIOUS SYNAPTIC PATTERNS ?																																	
LYMPHATIC	EARs	TX: DISORGANIZE																																	
CONNECTIVE TISSUE	SKIN	3 ACS AWARE OF EXISTANCE, IDENTITY, LOCATION INFECTIOUS AGENT ?																																	
CARDIOVASCULAR / HEART	ANY LEVEL ? TX: ALL LEVELS AWARE																																		
RESPIRATORY / SINUSES	LIVER / PANCREAS / GB / GI	4 TX: IMMUNE SYSTEM IDENTIFY, LOCATE, TARGET, DESTROY IAS																																	
LIVER / PANCREAS / GB / GI	5 IMMUNE ATTACK BEGUN ?																																		
6 ANY INFECTIOUS AGENT SURVIVE ?																																			
7 FAULT IN AFFERENT TAGGING RELATED TO PERCEPTION OF IAS ?																																			
AFFERENT SPECIFIC OR GLOBAL ?																																			
ACS AWARE APPROPRIATE TAGGING ?																																			
ANY LEVEL ? TX: ALL LEVELS AWARE																																			
INAPPROPRIATE TAG AT ANS SITE ?																																			
IDENTIFY ? TX: CORRECT																																			
8 ACS AWARE DISTINCTION BETWEEN BODY TISSUE AND INFECTIOUS AGENT ?																																			
ANY LEVEL ? TX: ALL LEVELS AWARE																																			
9 CROSSOVER AUTOIMMUNE RESPONSE ?																																			
CAUSED BY CROSS-LINK DATA IN CNS SITE ? IDENTIFY SITE (RAS, BG, A)																																			
AWARE INFORMATION TO CORRECT ?																																			
ANY LEVEL ? TX: ALL LEVELS AWARE																																			
CORRECT CROSS-LINK DATA																																			
10 RELATED SMP FAULT ?																																			
11 RELATED ENDO AP ? TP?																																			
INTRACELLULAR INFECTIOUS AGENTS																																			
..... "CONSISTANT WITH SAFETY OF HOST TISSUE."																																			



13. NMT: The Infectious Agent Pathway (IAP)

Always begin this pathway with a general check for any fault in cognitive valuation compromising awareness of the presence of infectious agents.

- 1) "With regard to (state problem), is there an infectious agent causing, or contributing to this condition?" Or, in the clear, "Is any level of the ACS aware of infectious agents (check intracellular IAs separately) resident in (specify organ, tissue system, or other structure)? Be aware of characteristics of types: Bacteria/Mycoplasma/Nanobacteria, Mold, Fungus, Virus/Prion, Amoeba, Parasite. MRT can only reveal answers to questions the subject of which the practitioner has comprehension. If yes, proceed to the next question. Remember that this pathway evaluates the perceptions of the patient's autonomic control system with regard to the existence of infectious agents in the body. If MRT indicates no, this is not an infectious agent pathway problem, continue with other lines of investigation.

The practitioner should MRT to find all tissue systems harboring infectious agents involved in the condition of interest. There may be pathogens resident in tissue systems other than the tissue system demonstrating the obvious symptoms. It is helpful to MRT to determine the perceptions of the ACS with regard to the types of infectious agents present - bacterial/mycoplasma, fungal, mold, viral, parasitic. This may be of value in suggesting tissue systems harboring the same infectious agents. It may also be of interest when subsequent re-examination is performed to indicate changes in the tissue system since the previous examinations.

A thorough examination of a new patient, or patient with a new problem should include an MRT check of each tissue system to determine if infectious agents are involved. This may alert the practitioner to infectious agents that are presently subclinical – an ideal time to rid the patient of this potential future threat. It may be wise to educate the patient that regular checkups to evaluate for subclinical presence of infectious agents in any of the tissue systems is a pro-active approach to their health. Why wait for problems to develop?

The actual determination of any resident infectious agents, and the identification of such pathogens require appropriate laboratory testing.

NeuroModulation Technique IAP is not a substitute for such medical laboratory testing and no representation should ever be made that it is.

The practitioner must have a clear comprehension of the characteristics and nature of all types of infectious agents to form a clear OTC/OTC interrogatory statement. Be sure to supplement your understanding with readings about all categories of infectious agents including: Bacteria, Mycoplasma, Nanobacteria, Mold, Fungus, Virus, Prions, Amoeba, Parasite.

If MRT indicates that all of the infectious agents in a tissue system may not be treated check to see if some categories of infectious agents in the tissue system may be treated.

MRT must always consider the limitations of the ACS response to query. These limitations may vary from patient to patient and over time for the same patient.

Thorough evaluation of the infectious agents pathway involves checking each organ

system, and when appropriate each component of a system. Subsequent recheck is needed to address the perception of any infectious agent that was not successfully addressed initially. It should never be assumed that just because a patient's complaint is local to a particular tissue, or system that the condition is unrelated, or uninfluenced by the perception of infectious agents in other tissues, or systems. A thorough assessment of all systems of the body with the Infectious Agents Pathway, and the treatment of all indications found is the appropriate clinical path to undertake.

Several infectious agents may be present in any organ, or tissue system. ACS awareness of other infectious agents may not be apparent until after the most problematic infectious agent has been treated. It is also possible that, because infectious agents inhibit one another, that the immune system may successfully target infectious agents noted when the IAP is first treated, eliminate them, and by so doing enable a previously suppressed set of IAs. If such IAs rise to a sufficient population level at recheck these IAs may now indicate for treatment with the IAP. This does not indicate any failure of previous NMT treatment. *Conversely it represents the capacity of NMT to follow changes in the patient's physiology, and address the dynamics of the disease process.* MRT will generally indicate such IAs were present at the time of previous treatment; but were not noted by the ACS. Obviously, it is also possible for new pathogens to be introduced to a patient at any time, and NMT clinical pathways may also signal this.

Care must be taken when using the IAP with fragile patients, and in patients who harbor infectious agents in many tissue systems. Successfully training the immune system through NMT treatment to target infectious agents may result in liberating significant amounts of endotoxins as the pathogens are killed. *Treat judiciously to*

- avoid significant Herxheimer's reactions.** Treat only one tissue system per office visit, and make sure on the subsequent encounter with the patient that MRT indicates clearly that treating IAP for another tissue system is appropriate at that time.
- A thorough NMT evaluation of all tissue systems of the body must be performed for the new patient, or when a patient presents with a new condition. Establish priority for treatment through NMT. Evaluate all systems:
- a. Cardiovascular system/Heart – the hardware of the circulatory system.
Nanobacteria sanguineum causes atherosclerosis.
 - b. Blood – may harbor infectious agents identifiable on live cell microscopy. Cell wall deficient forms, "Stealth pathogens" require specialized laboratory testing to reveal their presence. Standard culture methods are usually not sufficient.
 - c. Lymphatic system - Note that the structure of the capillary beds actually separates the lymphatic system from the contents circulatory system by the endothelial lining of the circulatory vessels. Consider in edema conditions.
 - d. Liver/Pancreas/GB/GI – may be home to several infectious agents common to all due to duct system. Consider LPGI pathogen in lipid diseases due to reducing effect of cholesterol in oxidative environment of chronic inflammation.
 - e. Respiratory/Sinuses – may be home to several infectious agents. In chronic sinusitis infectious agents may become apparent in layers. The ACS may indicate awareness of some pathogens only on recheck after previous IAP treatment.

- f. Endocrine system – Thyroiditis and other conditions
 - g. Urinary tract – chronic UTI
 - h. Reproductive tract –Prostatitis, PID
 - i. Nervous system – MS, and other degenerative states
 - j. Connective tissue/articular - arthritides
 - k. Integumentary system – rashes, acne vulgaris, acne rosacea
 - l. Osseos System – eg. in cavitation, infectious foci.
 - m. Oral cavity/teeth – Streptococcus mutans and Lactobacillus are known as major pathogens for dental caries, while *Porphyromonas gingivalis* and *Actinobacillus actinomycetemcomitans* for periodontal disease, and nanobacteria sanguineum for plaque on teeth as well as on arteries (perhaps by oral vector).
 - n. Eyes – degenerative conditions, cataract, MD?
 - o. Ears – otitis media, labyrinthine conditions?
- 2) "Are there active, inactive, or latent PSPs associated with this complaint?" If no, proceed to the next question. If yes, proceed to the following sub menu, and also be aware that PSP issues may present at any fork in a clinical pathway – suggested by inappropriate responses to MRT:
- a) "Is there any fault in cognitive valuation compromising the perception of the full spectrum of PSPs related to this condition?" If no, proceed to the next question. If yes, proceed to the following sub-menu:
 - i) "Is any level of the ACS aware of correct cognitive valuation with regard to this?" If yes, proceed to the next question.
 - b) "With regard to the number of active, inactive and latent PSPs is the number 10 to the Xth?" To quantify PSPs start with X=10 and work up by multiples of 10 (next number in this series is 100, then 1000) until you get a "no". Then cut the previous interval by halves until you arrive at a number that tests affirmative. If you first cut the previous interval in half, and this was too low, go up by half of the interval toward the number that first gave you a "no" until you arrive at the correct number. Accuracy to the whole number at the power level you are checking is adequate. This is because in doing a bracket query, and in establishing over and under limits to this number the ACS has necessarily quantified the PSPs. It is seldom necessary to spend the time to narrow this down further.
 - c) "Would it be of benefit at this time to treat with the intention of making all levels of the ACS fully aware of the identity, and existence of these PSPs, that they are producing harmful behavior, and that they must be disorganized to restore normal function?" If yes, treat for this statement, recheck for correction, and proceed to the next question.

3) "Are all levels of the ACS fully aware of the existence, identity, and location of this infectious agent(s)?" If yes, proceed to the next question. If no, proceed to the following sub-menu:

- a) "Is any level of the ACS fully aware of the existence, identity, and location of this infectious agent?" If yes, proceed to the next question. If no, isolate the reason and correct for this before proceeding. (Toxicity? PSP? Other?)
 - b) "Would it be of benefit to treat at this time with the intention of causing all levels of the ACS to be fully aware of the existence, identity, and location of this infectious agent?" If yes, treat for this statement, recheck previous question regarding full awareness, and proceed to the next question once awareness is established. If no, investigate the reason for this.
- 4) "Would it be of benefit at this time to treat with the intention of instructing the immune system to accurately and completely identify, locate, target, and destroy this infectious agent wherever it exists in the body?" To minimize "Herxing" consider adding "... At a rate compatible with the body's capacity to process the resulting toxins?" If no, check whether this must be done at another time and when that time is. If yes, perform treatment for this statement, and go to following question."
- 5) Is the immune system actively targeting and destroying this infectious agent?" If yes, proceed to the next question. If no, recheck previous steps.
- 6) "Will any of the infectious agent survive this process of the immune system?" If no, proceed to the question regarding tagging of afferent stimuli. If yes, ask

"Have all previous steps of the infectious agent pathway been completed successfully?" If response is still yes, proceed to immediate sub-menu:

- a) "Is the infectious agent susceptible to a properly targeted immune system attack?" If no, the patient may require natural, or pharmaceutical antibiotic.
 - b) "Is there any fault in the function, or regulation of the immune system?" If yes, investigate for autonomic deregulation, toxicity, endocrine influence, depletion, PSPs, or other compromise, and correct for that.
- 7) "Is there any fault in the tagging of afferent stimuli related to the perception of the infectious agent?" Be aware that this step may be indicated; but not commonly. If no, proceed to the next question. If yes, proceed to following sub-menu:
- a) "Is this fault afferent specific?" If no, the fault is global, so proceed to the following question. If yes, MRT query to find the appropriate tissue, and afferent to facilitate ACS awareness, and proceed to the next question.
 - b) "Are all levels of the ACS fully aware of appropriate tagging protocol for these stimuli?" If yes, proceed to the next question. If no, proceed to the following sub-menu:
 - i) "Is any level of the ACS fully aware of appropriate tagging protocol for these stimuli?" If yes, proceed to the next question.

ii) "Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of appropriate tagging protocol for these stimuli?" If yes, treat for this statement, confirm correction, and proceed to the next question.

c) "Are inappropriate tagging processes relative to these stimuli occurring at (specified nervous system site which will usually be amygdala, basal ganglia, or reticular activating system)?" If yes, proceed to the following sub-menu. If no, identify where this is occurring.

i) "Would it be of benefit at this time to treat with the intention of correcting all inappropriate tagging of afferent stimuli associated with the perception of the indicated infectious agent occurring at (specified site)?" If yes, treat for this statement, recheck, and proceed to the next question.

8) "Are all levels of the ACS able to accurately differentiate body tissue from pathogen?" If yes, proceed to the next question. If no, proceed to following sub-menu:

a) "Is any level of the ACS able to accurately differentiate body tissue from pathogen?" If yes, proceed to the following question. If no, investigate the reason for this (MRT, PSPs, cog. val)

b) "Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of the distinction between infectious agent and body tissue, and to communicate this information completely

and immediately to the immune system?" If yes, treat for this statement, recheck for correction, and proceed to the next question."

9) "Is there a crossover autoimmune response between infectious agent and body tissue?" If no, the IAP is completed. Some infectious agents may not involve a crossover autoimmune response – particularly if of recent onset – in which case IAP is primarily directed at training the immune system to target a pathogen it has been unaware of. If yes, proceed to the following sub-menu:

- a) "Is this crossover autoimmune reaction caused by a cross linking of data at the (reticular activating system, basal ganglia, and occasionally amygdala)?" If yes, proceed to the next question. If no, check for any other location this may be occurring.
- b) "Do all levels of the ACS have sufficient information to correct this cross-linked data?" If yes, proceed to the next question. If no, proceed to the following sub-menu:
 - i) "Does any level of the ACS have sufficient information to correct this cross-linked data?" If yes, proceed to the next question. If no, investigate any possible correction for this.
 - ii) "Would it be of benefit at this time to treat with the intent of making all levels of the ACS fully aware of the information necessary to correct the indicated cross linking?" Treat for this statement, recheck, and proceed to next question.

- c) "Would it be of benefit to treat at this time with the intention of correcting all cross-linked data in the (specified brain site) causing, or contributing to this crossover autoimmune response between referenced infectious agents, and any body tissues?" If yes, treat spinal points with breathing cycles, recheck for correction, and proceed to the next question. If no, check for possible reasons such as MRT, PSPs, cog. val., etc.

10) "Is there any fault in the sensory/motor pathways associated with the infectious agent phenomena?" If yes, proceed to the sensory/motor pathway protocol. Be aware that the effects of this experience with infectious agent, and the immune system response to the infectious agent may disturb settings of SEOs, and the CNS processing of their afferents. SMP may be required to resolve all symptoms associated with this experience (eg. in the arthritic knee after IAP we may treat various pain and stretch SEOs.) If no, proceed to the next question.

11) "Is there an autoimmune inflammatory response to any body tissue, body chemical, or breakdown product of the body?" If so, you will need to treat the endogenous AP. Try to accurately identify exactly to what "self" materials the immune system has been sensitized. The immunological chaos of any inflammatory process often results in immune system sensitization to "self" substances. Always check the Toxin Pathway to address immunological consequences of allergy responses.

The IAP is a regulatory chain, each step in the clinical pathway a link in that chain, all of which must be sound to support normal function. So, it is essential that follow-up be performed with infectious pathway patients until a durable correction to every link in the control chain of the infectious agent pathway has been proven.

Certain areas are commonly found to demonstrate inadequate correction on re-examination after the initial treatment.

It must be remembered that the process of resolving an infectious condition requires time for the immune system to eliminate the infectious agent, and also for the body to heal the damage caused by the infectious agent in the autoimmune response to the infectious agent.

10) Is there any fault in the sensory/motor pathways associated with the infectious agent? Recheck on a subsequent visit to make sure the infectious agent is no longer active in the body; or that the immune system is in the process of locating and destroying the infectious agent, and that none of the infectious agent will survive this activity of the immune system. Also, on reevaluation, check for the existence of any other infectious agents that were not identified, and consequently not the subject of previous IAP treatment. Treat the IAP as needed to clear each tissue system of infectious agents.

Check for the persistence of any fault in the tagging of afferent stimuli associated with the perception of the infectious agent.

Check for the persistence of any portion of the originally noted cross-linked data that may be perpetuating a crossover autoimmune response between body tissues and infectious agent - even after the infectious agent has been eliminated.

Check to see if the infectious agent, or any chemical product of the infectious agent is functioning as an allergen. Follow the Allergy Pathway as indicated.

Intracellular Infectious Agents

Any system may harbor intracellular infectious agents. Mattman describes, in Cell Wall Deficient Forms, that a number of pathogens have a propensity to go intracellular in certain phases of their pleomorphic existence. These will usually not be apparent in the standard MRT for infectious agents. Positive MRT for infectious agents in a particular tissue system will reference extracellular organisms; but not usually reference any intracellular forms unless intracellular IA's are referenced.

After a tissue system has been checked in the usual way for infectious agents, and MRT indicates there are none; or that those previously present have been completely destroyed – only then check for the presence of intracellular infectious agents.

Intracellular infectious agents are treated with the Infectious Agent Pathway with just a couple of changes from the way it is usually used. MRT for intracellular pathogens with reference to the particular tissue system involved – frequently the blood: "With regard to the (referenced tissue system) are there intracellular infectious agents alive, and active at this time?"

Modify the treatment of intracellular infectious agents with language that assures the ACS directs the immune system to target the intracellular infectious agent with attention to the safety of the tissues in which the intracellular pathogen is resident: "Would it be of benefit at this time to treat with the intention of instructing the immune system to accurately and completely identify, locate, target, and destroy this infectious agent wherever it exists in the body consistent with the safety of the host tissue?" The IAP for intracellular infectious agents is otherwise performed in the usual way.

14. NMT: What Is The Exogenous Analog Pathway?

Control chemicals exist in the body. These are generally local tissue level hormones, or systemic hormones – usually those from endocrine organs. These chemicals exert their influence by way of the chemical/structural relationship of the control chemical to the chemical functioning as a receptor site on the membrane of the cell whose function is to be controlled.

Chemicals exist in the external environment that have chemical structure sufficiently similar to naturally occurring body control chemicals to mimic their properties. They are capable of coupling with receptor site chemicals on the cells of the body. These chemicals, which may mimic the structure of naturally occurring body control chemicals, we will refer to as "exogenous analogs"

Two types of exogenous analogs are possible:

Inhibitory Exogenous Analogs - These exogenous analogs are close enough to the structure of natural control chemicals to bind to the receptor site; but not close enough in structure to trigger the cellular response of the natural control chemical. The influence of such chemicals in the body is to occupy otherwise available receptor sites, and compromise in an inhibitory way, the expected tissue influence of any given level of naturally occurring hormone/control chemical. The effect occurs by decreasing the probability that an active control chemical will have an opportunity to couple with a tissue receptor site.

Excitatory Exogenous Analogs - These exogenous analogs are close enough to the structure of natural control chemicals to both bind to the receptor site, and to trigger the cellular response of the natural control chemical. The influence of such chemicals in the body is to increase the probability that a tissue receptor site will be triggered. This results in compromise of an excitatory nature of the expected tissue influence of any given level of naturally occurring hormone/control chemical.

Endogenous Analogs – Be aware that the release of endogenous substances in the wrong place, the wrong time, and in the wrong concentrations may result in compromise of normal hormonal control of tissues. This may occur when endogenous substances function as analogs of other control chemicals, and adversely influence body function. In such cases, simply substitute the term "endogenous analog", or perhaps more specifically MRT for the particular substance (eg. neurotransmitters generally), or specific neurotransmitters – and then simply run the EAP referencing these substances.

NMT: EXOGENOUS ANALOG PATHWAY (EAP)



BODY CHEMICALS COMBINE WITH RECEPTORS
FOR BODY FUNCTION CONTROL

EXOGENOUS CHEMICALS MIMIC BODY
CHEMICALS

MISTAKEN COMBINATION WITH BODY
CHEMICALS RESULTS IN MALFUNCTION
OF BODY

MAY EXCITE OR INHIBIT FUNCTION

COMBINE + CONTROL ○ + || = 
MISTAKE + EXCITE ○ + || = 
MISTAKE + INHIBIT ○ + || = 

CORRECT COGNITIVE VALUATION,
AWARE ALL ASPECTS OF HEALTH?

ACS AWARE OPTIMAL TEMPLATE FOR
PHYSICAL, MENTAL, EMOTIONAL HEALTH?

1 AWARE DISTINCTION EXOGENOUS
ANALOGS VS BODY HORMONES?



VS ○ +
ANY LEVEL? TX: ALL LEVELS AWARE

2 ACS AWARE EXISTENCE EXOGENOUS
ANALOGS COUPLED TO BODY CELLS?



ANY LEVEL? TX: ALL LEVELS AWARE

3 ACS CAPACITY TO PURGE,
TRANSPORT, DEGRADE, ELIMINATE
FROM BODY?

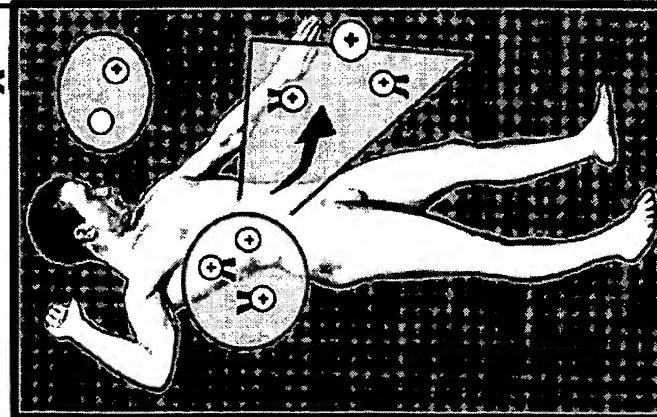


ANY LEVEL? TX: ALL LEVELS AWARE

4 TX: TO PURGE, TRANSPORT,
DEGRADE, ELIMINATE ETs

5 TX: ACS TO SELECTIVELY BLOCK
RE-UPTAKE AT GI, UT, SKIN

6 FUTURE VIGILANCE, PURGE,
TRANSPORT, DEGRADE, ELIMINATE
ON RECOGNITION



15. NMT: The Exogenous Analog Pathway (EAP)

1. "Are all levels of the ACS fully aware of the distinction between naturally occurring control chemicals of the body, and exogenous analogs of such control chemicals?" If yes, proceed to next question. If no, proceed to the following sub-menu:

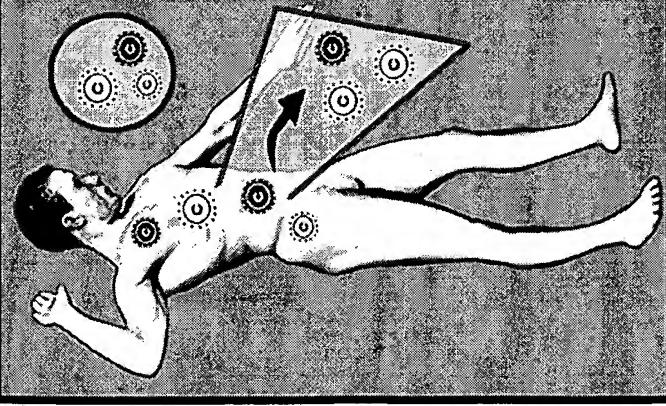
- a. "Is any level of the ACS fully aware of the distinction between naturally occurring, and exogenous analogs of such control chemicals?" If no, investigate the reason for this (Perhaps no such chemicals exist in the body? PSPs?). If yes, proceed to the following question.
- b. "Would it be of benefit at this time to treat with the intention of making all levels of the ACS fully aware of the distinction between naturally occurring, and exogenous analogs of such chemicals?" If no, investigate the reason for this (MRT, PSPs, Cog. Val.) If yes, treat for this statement, recheck for correction, and proceed to next question.

2. "Is the ACS at any level aware of the existence of any such exogenous analogs in the body, and the existence, identity, and location of cells in the body coupled to such exogenous analogs?" Alternatively, the question may be made specific to a particular tissue, and/or chemical. If no, pursue another line of investigation. If yes, proceed to the following sub-menu:
3. "Is it within the capacity of the ACS to force a purging and release of these exogenous analogs from their binding sites on cells of the body, facilitate their transport away from the tissues, and expedite their degradation and elimination from the body?" If yes, proceed to the next question. If no, investigate the reason for this (MRT, Cognitive Valuation, PSPs?).
4. "Would it be of benefit to treat with the intent of causing the ACS to force the purging of all exogenous analogs from all receptor sites on body tissues and chemicals, to facilitate the transport of these substances from the tissues, and expedite the degradation/elimination of these from the body?" If no, investigate the reason for this (MRT, PSPs, Cognitive Valuation?). If yes, treat, recheck, and proceed to the next question.
5. "Would it be of benefit at this time to treat with the intention of causing the ACS to perpetuate the selective inhibition of re-uptake of any such exogenous analogs from the digestive tract?"
6. "Would it be of benefit at this time to treat with the intention of causing the ACS to perpetuate an awareness for all future presentations of coupled, and

uncoupled exogenous analogs and upon recognition purge them from their receptor sites, facilitate their transport away from the tissues, and expedite their elimination/degradation from the body?" If no, investigate the reason for this. If yes, treat this statement.

TOXIN PATHWAY (TP)

TYPES OF TOXIC AGENTS:	CORRECT COGNITIVE VALUATION - AWARE ALL ASPECTS OF HEALTH ?						
EXO/ENDO TOXINS OF PATHOGEN ORIGIN FUNCTIONING AS NEUROTOXINS	ACS AWARE OPTIMAL TEMPLATE FOR PHYSICAL, MENTAL, EMOTIONAL HEALTH ?						
IMMUNOGLOBULINS	1 ACS AWARE TOXIC AGENTS COUPLED TO BODY TISSUES CHEMICALS ? EXISTANCE, IDENTITY, LOCATION SPECIFIC CHEMICAL AGENTS ? SPECIFIC SYSTEMS ?						
METABOLIC BREAKDOWN PRODUCTS OF INGESTANTS	2 ANY LEVEL AWARE ? TX - ALL LEVELS AWARE						
HEAVY METALS	3 CAPACITY TO FORCE: PURGE / RELEASE FROM BINDING SITES ? FACILITATE TRANSPORT FROM TISSUES ? DEGRADE AND ELIMINATE FROM BODY ? OR - PERNICIOUS SYNAPTIC PATTERNS ? OR - FAULT IN COGNITIVE VALUATION ? TX - FACTORS COMPROMISING ABILITY						
HALOGENATED ORGANIC COMPOUNDS (PESTICIDES AND HERBICIDES)	4 TX ALL / SOME REFERENCED TOXIC AGENTS ? WHICH ?						
VOLATILE ORGANIC COMPOUNDS	5 TX - PURGE / RELEASE OF SUBJECT TOXIC AGENTS FROM BINDING SITES, TRANSPORT FROM TISSUES, DEGRADE AND ELIMINATE * MAKE RATE APPROPRIATE TO BODY CAPACITY						
PAIN PRODUCING OR POTENTIATING ENDOGENOUS CHEMICALS	6 TX - SELECTIVELY BLOCK RE-UPTAKE TOXINS AT GI, UT, SKIN						
OTHER SPECIFIC TOXINS ?	7 AWARENESS FUTURE PRESENTATION TX - PURGE, TRANSPORT, DEGRADE, ELIMINATE ON RECOGNITION						



16. NMT: The Toxin Pathway

1. "Is the ACS at any level fully aware of the existence, identity, and location in the body of any of the following chemical agents bound to body tissues, or body chemicals and compromising optimal health":
 - Exotoxins and/or endotoxins of pathogen origin bound to elements of the nervous system, or other body tissues and chemicals (and functioning as neurotoxins, or other tissue poison)
 - Immunoglobulins, Immune Complexes (IC's), and Circulating Immune Complexes (CIC's)
 - Metabolic breakdown products of ingestants (eg. casieomorphines from milk)
 - Heavy metals
 - Halogenated organic compounds (pesticide/herbicide), VOCs (volatile organic compounds)
 - Pain producing, or potentiating endogenous chemicals
 - Other specified toxic agents

Make note of positive findings regarding categories of toxins present.

2. "Are all levels of the ACS aware of the existence, identity, and location of all such toxic agents?" If yes, proceed to the following question. If no, proceed to the following sub-menu:
 - a. "Would it be of benefit at this time to treat with the intention of making all levels of the ACS aware of the existence, identity, and

3. "Is it within the capacity of the ACS to force a purging and release of these toxic agents from their binding sites on body tissues and chemicals, facilitate their transport away from the tissues, and expedite their degradation and elimination from the body?" If yes, proceed to the next question. If no, investigate the reason for this (MRT, Cognitive Valuation, PSPs?).
4. "Should all referenced toxic agents be the subject of treatment at this time?" If yes, proceed to the next question. If no, proceed to the following sub-menu:
 - a. "Should the following toxic agents be the subject of treatment at this time: (specify toxins found in earlier MRT)?"
5. "Would it be of benefit at this time to treat with the intention of causing the ACS to force a purging and release of these toxic agents (specify appropriate toxins) from their binding sites on body tissues and chemicals, facilitate their transport away from the tissues, and expedite their degradation and elimination from the body; and to do so consistent with the body's capacity to safely tolerate this action?" If no, investigate the reason for this (MRT, Cognitive Valuation, PSPs). If yes, treat for this statement, check for correction, and proceed to the next question.
6. "Would it be of benefit at this time to treat with the intention of causing the ACS to perpetuate the selective inhibition of re-uptake of any such toxic

agents from the gastrointestinal tract, urinary tract, or skin?" If no, investigate the reason for this (MRT, Cognitive Valuation, PSPs). If yes, treat for this statement, check for correction, and proceed to the next question.

7. "Would it be of benefit at this time to treat with the intention of causing the ACS to perpetuate an ongoing awareness for future presentation of any such toxic agents and upon recognition to force a purging and release of these toxic agents from their binding sites on body tissues and chemicals, facilitate their transport away from the tissues, and expedite their degradation and elimination from the body, and to do so consistent with the body's capacity to safely tolerate this action?" If yes, treat for this statement, and recheck for correction. If no, investigate the reason for this.

NOTE:

Exotoxins, endotoxins, and immunoglobulins have the property of being chemically "sticky" and this helps them perform their intended functions. Exotoxins are diffusible proteins released from pathogens and are designed to stick to critical chemicals of competing organisms and protect the territory for the pathogen producing the exotoxin. Endotoxins are lipopolysaccharide components of the cell wall of the organism that are toxic to humans. Immunoglobulins (Ig's) perform a similar function in the human body as exotoxins do for microorganisms and are directed against offending pathogens. The immune system can release enormous amounts of Ig's during infection, or allergy and these Ig's can become "tissue-fixed immunoglobulins". Both exotoxins and Ig's can "stick" to important body tissues and body chemicals, and compromise their function. Exotoxins particularly have an affinity for elements of the nervous system. Metabolic breakdown products of certain ingestants are known for similar properties of "stickiness" and some have a

chemical structure similar to psychoactive chemicals (eg. castiromorphine from milk). These three types of toxic agents may be much more common in patients than heavy metals, or organic compounds. Their biological effects are profound and contribute to all manner of symptoms, particularly the neurological – including pain, fatigue, and other neurological symptoms.

Immune complexes (IC's) are what result when an antigen (allergen) and either a specific, or non-specific antibody combine. Water soluble antigens, both autoantigens (endogenous allergens) and exogenous antigens form circulating immune complexes (CIC's) and have a role in arthritides, vasculitides, and glomerulonephritis. Immune complexes are bound to complement (95% on surface of RBC's) and transported to the liver and spleen where they are digested by macrophages. This process keeps large lattices and precipitates of CIC's from forming in the body. Autoantigens such as cross reactive cell membrane chemicals form tissue-bound IC's. The result is inflammatory, or other disease processes in those tissues, (eg, Goodpasture's disease in the kidneys and lungs). Cross reactivity of any exogenous antigen to any body tissue or chemical can occur, and produce disease (eg, Chlamydia pneumoniae, or streptococcus and heart valve tissue).

Check the Toxin Pathway any time the Infectious Agent Pathway, or the Allergy Pathway (Exogenous or Endogenous) are treated, and maintain an awareness of the kinds of activity that this pathway can be directed against. MRT to see if the Toxin Pathway should be treated on the same visit as those pathways are treated. Recheck on re-examinations for percent of progress. Clearing may take many weeks, or months.

The Toxin Pathway is a tool that can be directed toward any substance that is identified by MRT to be compromising the patient's health. That may include industrial chemicals, endogenous pain producing and potentiating chemicals, heavy metals, industrial chemicals, or just about anything else you can clearly imagine to test. MRT with the Toxin Pathway can be as general as a particular class of compounds, or can be used in a more specific manner to check through lists of suspected compounds and substances. The critical issue, as in all NMT investigation, is the understanding of the practitioner of the characteristics of that which is being investigated and the formation of a clear OTC/OTC transmission of that understanding. Such an approach to MRT has the identical value of checking the patient with any number of energetically prepared vials since it is not the energetic properties of the vials that is transmitted to the patient; but the practitioner's comprehension of the subject item.

17. What Is The Morphic Field Pathway?

"The field is the only reality" Albert Einstein

Several articles by Rupert Sheldrake, Ph.D. on the topic of morphic fields are provided at the end of your seminar notes. A thorough reading of these articles is necessary to understand the concept of the morphic field pathway. Other readings include all of Sheldrake's publications available from his website, www.sheldrake.org and particularly his book The Presence Of The Past – Morphic Resonance & The Habits Of Nature, Lynne McTaggart's book The Field – The Quest For The Secret Force Of The Universe published by Harper Collins; and Valerie V. Hunt's book Infinite Mind – Science Of The Human Vibrations Of Consciousness, Malibu Publishing Co; and Power Versus Force, by David Hawkins, M.D., Ph.D, all available from Amazon.com.

Still another interesting resource available on the internet are three interesting essays on classic problems in quantum physics, and non-locality:
Quantum Weirdness I, II, and III
Author: Tom Tadfor Little
Web Address: <http://www.lelp.com/philosophy/qw.htm>

A fantastic resource for quality information on the zero-point field, and other matters of interest in the area of energy medicine and cosmology is available from Science and Spirit magazine, available by subscription in hardcopy, and at no charge online at: <http://www.science-spirit.org>

Several wonderful articles explaining the zero-point field and its relationship to life are noted below. **These articles are very important reading for you to be able to understand many of the concepts of energetics key to NMT.** Just type the address listed into your internet browser to locate the articles.

http://www.science-spirit.org/articles/printerfriendly.cfm?article_id=126
http://www.science-spirit.org/articles/articledetail.cfm?article_id=231
http://www.science-spirit.org/articles/articledetail.cfm?article_id=11

These materials written by respected authors and scientists lend considerable support to seemingly implausible perspectives NMT offers with regard to resolving disturbances in energetic relationships that have a profound effect on health and well-being.

Formative Causation – a Completely Different View of the Universe

The area of study named "formative causation", a term coined by Rupert Sheldrake and discussed extensively by David Bohm, is one that challenges virtually every assumption those of us educated in the traditions of western culture, and western science have been raised and educated to believe. Formative causation principles are quite compatible with concepts many of us have been taught to think of in derivative terms as primitive – the animist concepts of aboriginal cultures in the Americas, Africa, and Asia.

Formative Causation Principles Are, Paradoxically, Also Quite Compatible with the Concepts of Quantum Physics.

Pioneers of quantum physics, such as Werner Heisenberg and Wolfgang Pauli, have espoused some of the principles discussed by Rupert Sheldrake and others in this

field. Quantum physics has already led us to the proposition that we live in an appariotional world populated, not by things of real substance in the way we perceive them by our senses to be; but by representations of fields of energy interacting with one another. Every attempt to find the ultimate material building block of matter has simply lead to evidence that the last "ultimate particle" was just a nested hierarchy of smaller "particles" held together by a field of energy.

And So, the Process Continues with Every Assurance That the Process of Unfolding the Universe Will Simply Lead to Ever Finer Divisions Ad Infinitum of Quanta of Energy Held in Ever Smaller Areas of Probability.

The underlying thesis of formative causation is that we live in a universe from which energy pops out of a void of nothingness. A universe in which energetic entities, and their exact negative counterpart somehow spring into existence, in an exercise of creative bookkeeping that makes the accounting practices of some 21st century corporations seem almost conservative. We know from quantum physics the concept of all matter being a representation of energy, and we know of the concept of matter and anti-matter, and of a positive and negative form of every type of energy.

Ours Is a Universe Which, When the Red and Black Ink Is Reconciled on the Bottom Line of That Universal Corporate Report, Existed Only in the Imagination and Intent of Some Creator.

In formative causation, that which we perceive exists only as a manifestation of interference patterns within hierarchies of morphic fields that correspond to one another in functional relationships of various character, various degrees of strength,

and various degrees of persistence in time. It is not unlike the principle of the hologram in which an image exists nowhere, and yet everywhere within the matrix, or field of the medium which holds it.

Formative causation describes fields, areas of influence, in which energy is held thereby creating what we perceive to be matter.

In Such a Universe the Possibilities for Influence of the Field of One Person on Another by the Focus with Applications in the Area of Health Are Immense – And the Limitations of Such Possible Influence Theoretically Small.

This is the territory staked out by NeuroModulation Technique. It is an area of infinite possibility, only beginning to unfold; yet even now NMT offers tools for healing that are unrivaled in power. NeuroModulation Technique is a template by which the practitioner can apply, in the arena of health care, principles of formative causation that come the closest to revealing the actual nature of the phenomenon of life and it thereby affords the best opportunity to enhance life processes. The discipline of physics has progressed from the mechanistic, Cartesian and Newtonian viewpoint to a quantum mechanics view of the universe. Today, according to Sheldrake, 90% of all biologists characterize themselves with pride as mechanistic biologists. That viewpoint puts them about a century behind the curve of progress in comprehension of the universe we are part of. If quantum physics finds no ultimate particle of matter, but only fields of energy, we must consider most concepts of material limitations of healing as being archaic and without scientific evidence.

*If Modern Physics Tells Us That There Is Potentially a "Universal Field Theory"
That Could Describe All That Exists, Then It Is Hubris for Those of Us in Biological
Sciences to Consider That A Set Of Rules Applies To Our Bodies Distinct from the
Components That Make Up Those Bodies. We Must Recognize All That Exists to
Be Energetic Fields of Probability of Varying Quality and Quantity.*

A reference that takes the reader through a sweeping panorama of thought in the area of non-locality and the quantum nature of the universe is The Field by Lynne McTaggart, Harper Collins. This publication weaves together the thoughts of many disparate writers and thinkers in this area. An essential concept here is the "uncertainty principle" of Werner Heisenberg who in 1927 described the influence of consciousness on physical events. He showed that it is not possible to know the momentum and the position of an electron – that the electron exists as an area of energetic probability, a field, until such time as the event of observation collapses the probability function and freezes the characteristics of the electron revealing either its momentum, or the location.

*It Is Precisely This Concept of the Determining Characteristics of the Act of
Observation and Intent That Is Behind the Mechanics by Which NMT Influences
Physical Events in The Patients We Treat.*

Function of the Organ Systems That Comprise Our Bodies.

Yes, it takes more than one electron to make a person, but the same physical laws that apply to the small apply to the large.

The background, the field upon which our universe comes into existence and plays out its drama is the "zero point field". This is a sea of quantum energetic fluctuations in which virtual particles spontaneously come into existence and are

annihilated. It is a field within which even at zero degrees Kelvin, at which no energy was once thought to exist that energetic fluctuations appear spontaneously reflecting that ongoing process of generation and destruction. In this zero point field, all that exists comes into being as complexes of interference patterns within this universal energetic field.

What we are left with in our cosmology, and which Sheldrake has done a fine job of putting in popular and comprehensible form, is a universe composed of a nested hierarchy of morphic fields expanding outward ad infinitum to the very large, and each component of which is subject to inward division ad infinitum to the very small. And, since the universe can be so described, all that exists within that universe can be so described, including ourselves, and that which comprises the immediate components of that universe with which we interact in our daily lives. Also part of this concept of a morphic field representation is the understanding that as fields interact, and form functional relationships they comprise new nested hierarchies of morphic fields.

*So It Is for Us, That the Nested Hierarchy of Our Various Human Morphic Fields of
Structure, Form, and Function Express Their Influence on Developing Cells of Our
Embryological Bodies, and That They Direct the Physical Development, and
Function of the Organ Systems That Comprise Our Bodies.*

This zero point field perspective, and the concept of morphogenic fields is also consistent with recently accepted concepts of brain function and memory. The theory of memory as physical traces in the brain, made orthodox by Wilder Penfield in the 1920's was challenged by Karl Lashley's experiments with animals that proved that such a hardwired memory theory could not be accurate. The concept of

holographic representation of memory put forward by Lashley's student Karl Pribram in the 1960's was considered heretical at the time. Most of the science developed over the past 100 years contributing to the quantum view of everything has received a chilly reception at best; yet has eventually been supported experimentally. The holographic/zero point field perspective on memory is that memory is not stored in synapses, or the chemicals between them; rather that the synaptic patterns and the microtubules within brain cells act as antennae and resonate in tune with informational fields, themselves interference patterns within the zero point field. Fritz-Albert Popp produced powerful experimental evidence for this holographic theory of distributed memory with experiments demonstrating the production and transmission of light during brain processes in which the microtubule structures could instantaneously recruit generalized awareness throughout the nervous system.

In our view of morphic fields, it is also understood that when any morphic field represented entities come together to form a functional relationship that they in turn create their own nested hierarchy of morphic fields – a complex morphic field in its own right. The strength of influence of the overarching morphic field on the component morphic field entities relate to the number of elements of similarity between the field components, and the historical duration of those relationships. So, various criteria may influence the degree to which relational morphic field effects are distributed in any system and the strength of their effect.

Formative causation also postulates ancestral morphic fields for all that exists. All things that exist have existed for some time before. Human beings have existed for some few million years in one incarnation, or another; crocodiles and sharks for

many millions of years; and the electrons and simpler elements like hydrogen for billions of years.

In the Theory Of Formative Causation There Is Stability to Form and Function in Our Universe to the Degree That All Previous Incarnations of Its Constituent Entities Have Created a Morphogenic Field That Directs These Entities to Know How To Be What They Are.

There is much indirect evidence for this. It is known that when a new chemical is first synthesized that it may takes weeks, or months for a supersaturated solution of the material to crystallize out a pure crystal of the material. As this process is repeated in laboratories around the world the time period shortens and eventually becomes stable. So, according to formative causation the new material has learned how to be what it is and this behavior stabilizes over time. The oldest, and most elemental particles of the universe are hence the most stable in their properties; yet fluctuations even here have been shown. Properties of proteins to consistently fold into stable three-dimensional structures, to unfold in certain chemical environments, and to then refold to their original complex structure when the environment is again changed back defy most attempts of explanation. The concept of morphogenetic fields provides a way of explaining this, and many other phenomena; yet conflicts with little we can prove to be true.

The model NeuroModulation Technique proposes to explain human and animal life is a nested hierarchy of morphic fields, a concept that meshes perfectly with its analog in the world of neurology. In that world the mind is considered to be a nested hierarchy of neurological structures interacting, functionally resonating

between one another, and in so doing bringing into being the characteristics of the larger unit of neurological function.

In This Model, by Which We Exist as a Nested Hierarchy of Energetic Fields, Is The Potential for Perturbation of Phasic Resonance within This Nested Hierarchy, with the Potential for Attendant Adverse Consequences to Our Health.

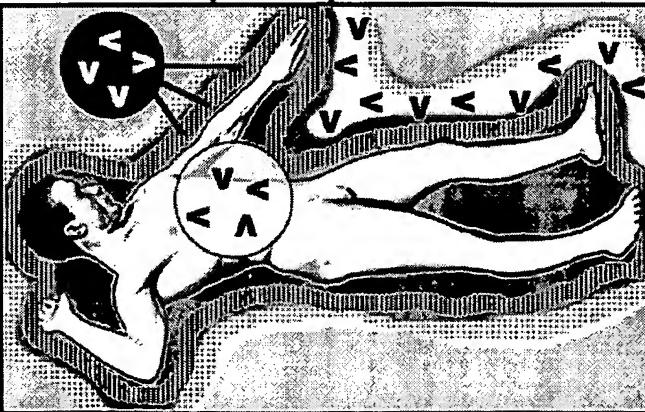
Simultaneously, there exists the potential for perturbation between the nested hierarchy of morphic fields, which constitutes ourselves, and the unified morphic field of the rest of the universe. Similarly, there exists the potential for perturbation between the morphic fields of ourselves with any person, place, or thing. All of these are, by definition, complexes of morphic fields. Since, by forming any degree of relationship with such entities, we become part of some higher level morphic field that describes all such components together, we must consider the possibility of pattern perturbation within this complex. There is even the potential for our present nested hierarchy of morphic fields to experience pattern perturbation with our ancestral nested hierarchy of morphic fields, as the effect of such fields spans time, and thus be compromised in the optimal expression of what we are meant to be.

The Morphic Field Pathway Is a Tool to Create Energetic Harmony within the Patient, the Patient's Ancestral Morphic Fields, and Between the Patient and the Components of the World within Which the Patient Exists. All That Exists Is Defined in Terms of Energetic Fields. So, the Morphic Field Pathway Is Also a Tool to Address Any Disharmony in the Relationship of Any Set of Entities. To the Degree That Such Disharmony Relates to a Pattern Perturbation in the Morphic

Resonance Between the Fields That Comprise the Subject Entities, Such Disharmony Can Be Turned To Harmony.

MORPHIC FIELD PATHWAY (MFP)

1 ACS AWARE OPTIMAL TEMPLATE FOR PHYSICAL, MENTAL, EMOTIONAL HEALTH ?	ACS AWARE NHMFBS-SUBSETS ? ANY LEVEL ? TX: ALL LEVELS AWARE
2 CORRECT COGNITIVE VALUATION, PHYSICAL, MENTAL, EMOTIONAL HEALTH ?	ACS AWARE OF PATTERN PERTURBATION WITHIN THE NHMFBS-SUBSETS ? ANY LEVEL ? TX: ALL LEVELS AWARE
FOR PATTERN PERTURBATION: WITHIN THE NHMFBS-SUBSETS BETWEEN THE NHMFBS-SUBSETS AND THE UMFSUBSETS BETWEEN THE NHMFBS-SUBSETS AND RFF ANATOMICAL PART OR SYSTEM OF BODY BETWEEN THE NHMFBS-SUBSETS AND ANY PERSON, GROUP, PLACE, THING	3 ACS AWARE OPTIMAL PATTERN OF RESONANCE NHMFBS-SUBSETS ? ANY LEVEL ? TX: ALL LEVELS AWARE
	4 TX: SYNCHRONIZE NHMFBS-SUBSETS TO OPTIMAL MORPHIC RESONANCE
	5 ACS AWARE EXISTANCE OF THE UMF-SUBSETS ? ANY LEVEL ? TX: ALL LEVELS AWARE
	6 ACS AWARE OF PATTERN PERTURBATION WITHIN THE UMF-SUBSETS ? ANY LEVEL ? TX: ALL LEVELS AWARE
	7 ACS AWARE OF THE OPTIMAL PATTERN OF RESONANCE FOR THE UMF-SUBSETS ? ANY LEVEL ? TX: ALL LEVELS AWARE
	8 TX: SYNCHRONIZE NHMFBS-SUBSETS / UMF-SUBSETS TO OPTIMAL RESONANCE
	9 TX: MAINTAIN VIGILANCE, RESYNCHRONIZE NHMFBS-SUBSETS
	10 TX: MAINTAIN VIGILANCE, RESYNCHRONIZE THE UMF-SUBSETS / NHMFBS-SUBSETS
	11 ACS AWARE OF PATTERN PERTURBATION PRESENTANCE STRAL NHMFBS-SUBSETS ? ANY LEVEL ? TX: ALL LEVELS AWARE
	12 ACS AWARE OPTIMAL PATTERN OF MORPHIC RESONANCE FOR (11) ? ANY LEVEL ? TX: ALL LEVELS AWARE
	13 TX: SYNCHRONIZE PRESENTANCE STRAL NHMFBS-SUBSETS
	14 TX: MAINTAIN VIGILANCE, RESYNCHRONIZE PRESENTANCE STRAL NHMFBS-SUBSETS
	15 TX: RESOLVE RFF INTO NHMFBS



18. NMT: The Morphic Fields Pathway

levels of the ACS aware of this?" If yes, proceed to the next question. If no, proceed to the following sub-menu:

1. "Is any level of the ACS fully aware of the existence, and identity of the nested hierarchy of morphic fields of the body, and its constituent subsets?" If no, investigate the reasons for this (cognitive valuation, PSPs, MRT). If yes, "Are all levels of the ACS aware of this?" If yes, proceed to the next question. If no, proceed to the following sub-menu:
 - a. "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?" If yes, treat for this statement, recheck and go to the next question. If no, investigate the reasons for this (cognitive valuation, PSPs, MRT).

- a. "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?" If yes, treat for this statement, recheck and go to the next question.

2. "Is any level of the ACS aware of pattern perturbation in morphic resonance of the nested hierarchy of morphic fields of the body and its constituent subsets?" If no, investigate the reasons for this (cognitive valuation, PSPs, MRT). If yes, "Are all levels of the ACS aware of this?" If yes, proceed to the next question. If no, proceed to the following sub-menu:
 - a. "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?" If no, investigate the reasons for this (cognitive valuation, PSPs, MRT). If yes, treat for this statement, recheck and go to the next question.

3. "Is the ACS at any level aware of an optimal pattern of resonance for the nested hierarchy of morphic fields of the body, and its constituent subsets?" If no, investigate the reasons for this (cognitive valuation, PSPs, MRT). If yes, "Are all

- a. "Would it be of benefit to treat at this time with the intent of causing the ACS to synchronize the nested hierarchy of morphic fields of the body, and its constituent subsets to an optimal pattern of morphic resonance?" If no, investigate the reasons for this (cognitive valuation, PSPs, MRT). If yes, treat for this statement, check for correction, and proceed to the next question.
4. "Is any level of the ACS fully aware of the existence, and identity of the unified morphic field, and its constituent subsets?" If yes, "Are all levels of the ACS aware of this?" If yes, proceed to next question. If no, proceed to the following sub-menu:
 - a. "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).
5. "Is any level of the ACS aware of pattern perturbation between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the

unified morphic field, and its constituent subsets?" If no, the basic morphic field pathway is concluded. Be aware that it is possible to evaluate and treat with similarly constructed semantic statements for disharmony of the morphic fields of any set of entities, eg. persons, places, things, etc. If yes, "Are all levels of the ACS aware of this?" If yes, proceed to the next question. If no, proceed to the following sub-menu:

- a. "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).

6. "Is any level of the ACS fully aware of an optimal pattern of resonance between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets?" If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT). If yes, "Are all levels of the ACS aware of this?" If yes, proceed to the next question. If no, proceed to the following sub-menu:
 - a. "Would it be of benefit to treat with the intention of causing all levels of the ACS to be fully aware of this?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).

7. "Would it be of benefit to treat with the intention of causing the ACS to synchronize the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets to

an optimal pattern of morphic resonance?" If yes, treat for this statement, recheck, and proceed to the next question. The next two questions are "Future Vigilance" statements with the purpose of keeping the ACS alert for any deviation from optimal energetics within morphic fields related to the patient. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).

8. "Would it be of benefit to treat with the intention of causing the ACS to maintain vigilance for any future pattern perturbation within the nested hierarchy of morphic fields of the body, and its constituent subsets, and upon recognition to synchronize this system to an optimal pattern of morphic resonance?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).

9. "Would it be of benefit to treat with the intent of causing the ACS to maintain vigilance for any future pattern perturbation between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets, and upon recognition to resynchronize these systems to an optimal pattern of morphic resonance?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT). Consider any other possible presentations of phasic dis-resonance of the nested hierarchy of morphic fields that constitute the patient with other specific entities the patient regularly interacts with. It is possible to check specifically for energetic disharmony of the patient to all manner of components of the patient's life, to construct specific corrective protocol statements modeled on this pathway, and to treat to produce an optimal energetic relationship for the patient.

Alternatively, for the longwinded practitioner, the above two future vigilance statements may be combined into one:

10. "Would it be of benefit to treat with the intention of causing the ACS to maintain vigilance for any future pattern perturbation within, and between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets, and upon recognition to resynchronize these systems to an optimal pattern of morphic resonance within and between themselves?"

11. "Is any level of the ACS aware of pattern perturbation between the nested hierarchy of morphic fields of the body and its constituent subsets, and the ancestral nested hierarchy of morphic fields of the body, and its constituent subsets?" If no, the basic morphic field pathway is concluded. Be aware that it is possible to evaluate and treat with similarly constructed semantic statements for disharmony of the morphic fields of any set of entities, eg. persons, places, things, etc. If yes, "Are all levels or the ACS aware of this?" If yes, proceed to the next question. If no, proceed to the following sub-menu:

a. "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).

12. "Is any level of the ACS fully aware of an optimal pattern of resonance between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the ancestral nested hierarchy of morphic fields of the body, and its constituent subsets?" If no, investigate possible reasons for this (cognitive valuation,

valuation, PSPs, MRT). If yes, "Are all levels of the ACS aware of this?" If yes, proceed to the next question. If no, proceed to the following sub-menu:

a. "Would it be of benefit to treat with the intention of causing all levels of the ACS to be fully aware of this?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).

13. "Would it be of benefit to treat with the intention of causing the ACS to synchronize the nested hierarchy of morphic fields of the body, and its constituent subsets, and the ancestral nested hierarchy of morphic fields of the body, and its constituent subsets to an optimal pattern of morphic resonance?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).

14. "Would it be of benefit to treat with the intent of causing the ACS to maintain vigilance for any future pattern perturbation between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the ancestral nested hierarchy of morphic fields of the body, and its constituent subsets, and upon recognition to resynchronize these systems to an optimal pattern of morphic resonance?" If yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, PSPs, MRT).

15. Regional Field Fault (RFF) is the concept that there can be anatomical regions (even to the level of a specific chemical or receptor), or functional regions eg. the nervous system, or specific structures of the body that are energetically sequestered

and isolated from optimal integration within the NHMFB. This should be distinguished from the concept of pattern perturbation, which is akin to the concept of phasic disresonance. With this understanding ask:

- a. "(With respect to the stated complaint) Is any level of the ACS aware of the identity, existence, and location of a Regional Field Fault?"
"Are all levels?" Tx as necessary for awareness.

- b. "Is this RFF specific to a functional system, anatomical region, specific chemical or chemical system?" MRT for specific ID.
- c. "Is any level of the ACS aware of an optimal pattern of morphic resonance that resolves the RFF and integrates the RFF to the NHMFB?" Tx as necessary for awareness.
- d. "Would it be of benefit to treat with the intent of causing the ACS to synchronize the NHMFB and specified RFF to an optimal pattern of morphic resonance that integrates the RFF within the NHMFB?" Tx.

and recheck

When the Issue Is That the Patient Is in Disharmony with Another Person, Eg. a Spouse, Friend, Child, Etc. Perform the Morphic Field Pathway for Two Entities as Described Above for "Ancestral Morphic Field", and for "Unified Morphic Field" Substituting the Name of the Person for the "Ancestral" or "Unified" Morphic Fields.

In such a case it is preferable that each person be synchronized for the basic morphic field pathway first, and then that the two people be synchronized to each other.

When the Issue Is Disharmony Between a Person and Some Place, or Thing, First Synchronize the Person with the Basic Morphic Field Pathway, and Then to That Secondary Entity.

Then check that all levels of the autonomic control system are aware of the morphic field of the entity to which the individual is to be synchronized. Then synchronize the person to the morphic field of the entity in question using the above examples as a language template for the pathway.

When the Issue Is Disharmony within Some Group You May Attempt To Address the Collective Morphic Field of the Group Using a Person as a Surrogate to Investigate the Status of the Morphic Field of the Group As a Distinct Entity of Its Own, and Synchronize the Group, As You Would an Individual Using the Above Examples as a Language Template for the Pathway.

If we accept the concept of the zero-point field, and all that goes with that perspective, many possibilities open up to us therapeutically. This model of the universe is denoted by properties of non-locality. Similarly, this model is characterized by the properties of morphic fields, and the concept of formative causation that holds that ancestral morphic fields representing all that has gone before our current temporal window continues to be energetically connected to the present. Implications of this suggest that all sorts of interesting, if not uncanny, treatment possibilities exist. A violin player might want his morphic field synchronized to the morphic field of Isaac Stern. The father of a little league player

might want his son's morphic field to be synchronized to the morphic field of Babe Ruth. Perhaps some specificity would be in order with respect to what parts of the Babe's nested hierarchy of morphic fields. No father would want to wind up with an overweight, boozing, eleven-year old womanizer. Perhaps the whole ball team could have its morphic field synchronized to the morphic field of the best championship little league team of all time.

It may be of interest to patients with awareness, and concern in matters of a spiritual nature to synchronize the nested hierarchy of morphic fields of the body, and its constituent subsets with the morphic field of the manifestations of God, eg. Moses, Christ, Buddah, Mohammed, Zoroaster, Krishna, Bahá'u'lláh separately, or collectively.

The limitations of what can be done with the morphic field pathway approach the limitations of imagination of the practitioner, and the imagination and interests of the patient. Among the applications of the MFP are in cases of receptor insensitivity to hormone, eg. insulin. Sheldrake discusses in The Presence Of The Past – The Habits Of Nature the phenomenon of protein folding in which a protein consisting of a hundred or more amino acids is capable of folding repeatedly from a wavy denatured form in a given pH environment to its usual complex three dimensional form at a speed which confounds all attempts to explain the phenomenon. What does provide a plausible mechanism by which this folding can occur is the presence of a morphogenic field that directs this process in a wholistic as opposed to a stepwise manner. It may be found in some cases of diabetes, or other conditions that there is a fault in this endocrine process resulting from a fault in the formation of the receptor chemical. Treating the MFP with the morphic field of such receptor as the subject and checking for and correcting any pattern perturbation of that field

with the nested hierarchy of morphic fields of the body may result in rapid and distinct improvement in this endocrine process by permitting a more correct morphology of the receptor chemical.

19. How To Progress The Patient Through A Course Of Treatment?

Establishing a Valid Base from Which to Evaluate

An essential piece of information to know when you make any query is whether the person you are directing your question to has a any impairment of cognition that would compromise their capacity to deliver a valid answer. To ensure that this is the case, we use the first of two qualifying questions known as the "Global Cognitive Valuation" query: "**Is there any fault in cognitive valuation compromising awareness of any aspect of your health?**" If yes, "**Is any level of the ACS aware of correct cognitive valuation in this regard?**" We accept axiomatically in NMT that some level of the ACS always has the information required to restore normal control to the body. So, the next step is the statement, "**Would it be of benefit to treat at this time with the intent of making all levels of the ACS aware of correct cognitive valuation in this regard?**" And, following the treatment of the previous corrective statement, "**Would it be of benefit to treat at this time with the intent of correcting all faults in cognitive valuation?**"

Imagine getting into your car, inserting the key, starting the engine, stepping on the gas and having the sudden realization that you have no idea where you are going. We must be certain that the patient has some idea of where they need to go with respect to changing body function in a way that restores health. To that end we use a "Global Template of Health" query and corrective statement that should be the second of our two qualifying investigations at the beginning of each treatment session:

"**Is any level of the autonomic system fully aware of an optimal template for physical, mental, and emotional health?**" If yes, "**Are all levels of the ACS aware of this?**" If yes, proceed with the pathway. If no, "**Would it be of benefit to treat with the intention of making all levels of the ACS aware of this?**" Treat as indicated and recheck for correction before beginning the first clinical pathway on each treatment session.

Pathways

NMT approaches treatment from the perspective that we are treating people, not conditions. Therefore, this work is organized into a series of clinical pathways that investigate the various parameters within which function may be compromised, leading to illness. The clinical pathways of the comprehensive level seminar provide a broad net that will catch most of the factors contributing to a wide variety of conditions. Each presenting condition may have a variety of causes represented by the particular NMT clinical pathways involved. Any two patients with the same presenting condition may have very different patterns of clinical pathways required to correct their condition.

Beginning Treatment

I recommend that the first office visit for a new condition be dedicated to establishing a clear picture of what is involved in the patient's condition. To begin with, a physical examination and diagnosis should be arrived at for practitioners who are physicians trained in these areas. Some NMT practitioners are licensed health care providers untrained in these areas, and it is recommended in such instances that a physician trained in diagnosis be part of the treatment team. NMT treatment has enormous power to influence clinical symptoms. Consider the case of a patient who presents with low back pain as the result of an abdominal aortic

aneurysm. The practitioner will, without question, be able to moderate the pain of this condition by influencing tissue sensor settings, CNS processing, and motor function with NMT clinical pathways. Failure to recognize the underlying dangerous pathology may result in catastrophe.

In initially assessing a new condition, the practitioner should evaluate what clinical pathways are involved through MRT. At each treatment, MRT should be used to determine if there is a primary fault causing, or contributing to the condition by running through the pathway categories, and this is where treatment should commence. At each fork in the clinical path, the determination of priority for the next step in NMT treatment should be performed. Understand that from one visit to the next, priorities may change based on changes in the patient resulting from the previous treatment.

The Patient Should Be Advised Based on the Comprehensive Evaluation Performed on the First Visit of at Least Some General Range of the Number of Visits that May Be Required – if Not to Conclude Treatment, at Least to Reach a Milestone of Improvement Validating the NMT Approach to Their Problems.

Many patients have stunningly rapid resolution of very serious problems with NMT. That is a mixed blessing because it may cause both the practitioner and the patient to think every patient must have a profound response immediately. This is not so, and we must recognize that there are many factors inherent in the patient which may contribute to this – even when NMT is performed perfectly. So, a reasonable number of visits should be proffered to the patient as a window of time within which some solid improvement should be obvious. There are few conditions in which significant improvement will not be noted within half a dozen visits.

Clinical experience will inform the practitioner with more accurate projections of patient response. But, even in just beginning to use NMT, give your patients a point in time and percentage of improvement that the two of you agree is a rational decision point at which to elect to continue treatment, or to make a referral to another practitioner.

The Patient Should Be Informed of the Clinical Components Found to Be Responsible for Their Condition, Eg. Exogenous Allergy, Infectious Agents, Endogenous Allergens, Toxins and the Kind of Variables That May Influence Progressing Through Each of These Pathways.

The informed patient is more likely to understand why adhering to the practitioner's treatment plan is important. Malpractice insurance companies regularly inform their insured that medico-legal problems are minimized when patients are well informed by their practitioner. This seems to be particularly important when performing NMT in which our approach to treatment does not correspond to models of medical treatment the patient may previously have been conditioned to recognize as "usual and customary". Whether you perform a formal report of findings with your patient, or integrate patient education into the treatment time you spend with the patient, be sure to confirm that the patient understands what you are doing, and why this is a reasonable approach to their problem.

Establishing the Goals of Treatment

The degree of disorganization of the ACS may be so profound that all levels of the ACS may not have awareness of an internal template for optimal health. Determine if this is so as you begin each treatment:

"Is any level of the autonomic system fully aware of an optimal template for physical, mental, and emotional health?" If yes, "Are all levels of the ACS aware of this?" If yes, proceed with the pathway. If no, "Would it be of benefit to treat with the intention of making all levels of the ACS aware of this?" Treat for this statement, recheck for correction, and proceed with the first clinical pathway. It may be of value to check for awareness of this template for optimal health at various points in the course of treatment.

When Is Enough, Enough?

The immediate result of NMT treatment should be seen as the production of an energetic work list for the patients ACS to perform. That work list may be simple and easy to accomplish, or it may be quite intricate, complex, and demanding. Attention should be paid at all times to this concept, and the practitioner should frequently MRT to see if further treatment is indicated in any treatment session. A common mistake to make is to think that because you can continue to get answers through MRT regarding faults remaining to be corrected that the practitioner should continue to make corrections for the patient as long as there is available time. This is not true, and may result in incomplete correction of what was treated, or unnecessary temporary reactions to treatment that may be misinterpreted by the patient, and result in failure to follow the treatment plan.

Failure to Inform the Patient of a Reasonable Range of Outcomes May Result in Their Withdrawal from a Course of NMT Treatment That Would Ultimately Have Been Successful, and Perhaps Would Have Offered Their Best Possible Choice to Regain Their Health. The Patient Who Has Been Severely Ill for Years, Who Has Spent Many Thousands of Dollars on Ineffective Care Should Realize That a 50% Improvement Over a Course of a Few Weeks Is Wildly Successful. Without Reasonable Guidance from the Practitioner Some Such Patients May See That the "The Glass Is Half Empty".

What to Do When the Patient Doesn't Respond as Expected?

NMT, properly performed is an incredibly powerful tool to restore normal function in our patients. The facility with which the NMT trained practitioner executes treatment is a Learned skill, one that improves with experience, and with careful attention to the details of implementation. *Like the virtuosity a musician develops with practice, or learning to project one's voice in singing – it's not just the notes!!!*

You will learn to project your intent effectively as you work.

When Treatment Results Do Not Meet Clinical Expectations Step Back from the Process and "Reverse Engineer" the Problem. Use MRT as a Fact-Finding Tool to Identify the Specific Places in Your Protocol That Failed. NMT Is Not About a Winning Personality in the Practitioner, Nor About a Suggestible Character in the Patient. NMT Is a Reproducible Science of Healing. When Clinical Responses Are Not What You Have Been Taught Are Possible You Must Disassemble the Protocol, and Look at Each Constituent Element to Find Your Error.

I once treated a new patient with severe allergies of long duration. He had projectile vomiting with any milk product followed by days of disabling headaches, also respiratory allergies and sleep disturbances. After his second, visit he tested himself by going out for a Reuben sandwich and milkshake. He brought two of his buddies to carry him out of the restaurant if the treatment hadn't worked (you have to admire both his faith, and his prudence). He had no symptoms, except a slight nasal congestion the next day. This is a typical response when NMT is performed well with such a patient. Still, it wasn't a one-visit miracle, and I had to look at what components of treatment had not been 100% effective with that first treatment.

When he came in for his second visit, I found by MRT that 15% of the substances that were exogenous allergens on the first visit didn't clear - not that we treated individual allergens - I just asked that question in regard to the global allergy issue. "Compared to the number of substances behaving as exogenous allergens, is the number of active triggers at this time 50% of the original number, 20%, 10%, etc?" When the patient knows that certain substances are allergenic triggers, we can be specific in questioning about those substances using our semantic query to access the catalogue of allergens recorded in the ACS that must be accessed for the body to be able to produce an allergic response. On the third visit, this patient felt he was

nearly 100% symptom free, and my MRT said 3% of the original number of allergens were still symptomatic and we performed the allergy pathway a third time. I found PSPs related to his allergy experience at each visit.

What are the variables - what can go wrong in treatment?

When you ask if there are inhalants, ingestants, contactants, or injectants behaving as allergenic triggers, do you have a clear idea in your mind about what you are asking? When you ask if these substances are the subjects of inappropriate tagging of afferent stimuli, are you visualizing these things being mislabeled at the relevant processing nuclei of the brain? Do you have a clear idea of the crossover autoimmune response when you ask that question? Are there infectious agents in the sinuses contributing to inflammation of tissues, perhaps allowing more access of irritating substances to the capillary bed and its reservoir of immune system cells? We must consider when treating any condition, when using any clinical pathway, that there may be concurrent influences that require the use of another pathway. So, from one visit to the next, in a complex case you may be required to switch from one pathway to another, and back again to conclude treatment. Be flexible in your thinking, and realize that the NMT pathways constitute a therapeutic web of interrelated parts.

Are you deviating from the protocol in any way at all? Are you treating too many pathways on a visit? Are you mixing together other energetic treatment approaches on a NMT visit instead of maintaining a disciplined focus in the NMT mode of thought?

Consider that prolonged exogenous allergies may produce endogenous allergies in some tissue systems that cause symptoms. Endogenous allergy should be treated on

a separate visit from exogenous allergy, and again any specificity you can add referencing particular tissues, or class of chemicals that may be triggers will help. In respiratory allergies, as well as GI allergies, there is often a stealth pathogen contributing to symptoms, causing tissue inflammation, and in the case of GI, leaky gut. Missing the infectious agent aspect may cause you to retreat the allergy pathway repeatedly when the factor compromising response lay elsewhere.

Be Aware That the Reason a Patient Doesn't Respond as Expected May Be a Severe

Pathology That Has Not Been Recognized and Which Requires Medical

Intervention. If You Are Not a Practitioner Trained in Diagnosis Consider That

Having a Medical Evaluation Performed May Be Prudent. Your Patient Will Appreciate That You Have Their Best Interests as Your Highest Priority. It May Not Be Necessary to Interrupt a Promising NMT Treatment Regimen While This Is Being Done.

You have the tools to break down each case that is not responding the way you think it should and that is outlined in step-wise manner in the Trouble Shooting Pathway. MRT to find out what aspects of treatment failed to be 100% effective. Was it a matter of not identifying all allergens? You will find that out when you MRT in your follow up visit. Find out if there are exogenous allergies still triggering symptoms, have the ACS ID the allergens, find out if they were the subject of previous tx., or just had been ignored by the ACS in the previous treatment. If so, you were not successful bringing these to awareness in previous treatment. Did you not conceptualize clearly what you wanted the ACS to consider? Did you need to make a more specific semantic reference to some allergens? Was the problem a matter of afferents associated with previously treated substances still not being correctly tagged? If so, you should be able to find this out, and be able to MRT the

percent of such substances compared to before initiating treatment that are still inappropriately tagged. Dissect the case, and find out what parts failed, and then look to what you can do to clear that aspect more effectively.

I suggest that practitioners use this sort of thinking whenever any type of case fails to respond to NMT treatment in the way you expect it to. What you don't want to do is blindly push through the clinical pathways time after time without recognizing specifically what facet of previous treatment failed.

Periodic Re-examination

When you treat any patient who has had a significant problem – allergy, autoimmune disease, chronic musculoskeletal problem, internal problem, or infectious agent related condition for a long time, you must perform reasonable follow up exams to insure a durable resolution. Do not simply release the patient when they have become symptom free. Schedule one, or several monthly follow-up exams at which time you will perform a global evaluation of the patient and determine any active, or latent troubles that need to be addressed. Do this so your patient achieves a durable level of good health. Don't just let the patient slip back and forth between acute episodes; but give them an understanding of what reasonable management of their health is. Recommend annual, or biannual re-evaluations depending on the particular patient. NMT: The Feinberg Technique affords a real opportunity for your patients to actually stay ahead in the game of maintaining health instead of the standard medical model of leaping from one emergency to another.

20. Global Evaluation Form Abbreviation Key

ICD-9 DX – Standard diagnostic code

Subjective – What the patient tells you of their condition

Global CV Fault – Treated for a CV fault compromising awareness of health?

Global Health Template? – Treated for ACS awareness of global health template?

Infectious Agent Pathway – Box below summarizes IAP for all systems

CV-Tx'd – Treated for a CV compromising awareness of IAs in any tissue system?

Organ Abbreviations

LPGI – Liver, pancreas, gallbladder, GI tract

End – Endocrine system

Oral – Oral cavity/teeth

Bld – Blood system ie. the circulating components.

Lym – Lymphatic system

CV – Cardiovascular system/blood vessels

Rep – Reproductive tract

UT – Urinary tract/kidneys

Skin – Integumentary system

CT – Connective tissue system

BN – Bone/Osseous system

URT – Upper respiratory tract

EYE – Ocular system

EAR – Auditory/vestibular system of ears

NS – Nervous system

Treatment Column

Tx Step – Steps below in column match those of IAP.

Present? – Is an infectious agent resident in the tissue?

Aware? – Is the ACS aware of the infectious agent?

PSP b10 – Pernicious synaptic patterns in scientific notation.

B/MyoP – Bacteria, mycoplasma, or nanobacteria forms?

Fungus – Fungal forms?

Mold – Mold forms?

Virus/Prm – Viral or prion forms?

Parasite – Parasitic forms?

Tagging – Tagging fault in processing of afferent stimuli related to IA.

Diffrniate – Can the ACS differentiate body tissues from IA?

Crossover – Is there a crossover autoimmune response of IA/body tissues

Modulate? – Were IAs in this tissue system treated?

Allergy Pathway (AP) – Box below summarizes AP

Exog: Y N % of prev. _____% - Exogenous allergen? % of pre-ix. # active?

Endog: Y N % of prev. _____% - Endogenous allergen? % of pre-ix. # active?

CV-Fit – Treated CV fault in recognizing allergens?

Awr – Is the ACS aware of the identity and existence of the allergens?

PSPs b10 – Pernicious synaptic patterns in scientific notation.

Tagging – Is there a fault in tagging of afferent stimuli to stimulus of allergen?

Diff – Can the ACS differentiate allergen from body tissue?

XO – Is there a crossover autoimmune response?

Mod – Was the allergy treated?

A,B,R, _____ - Site of tagging fault amygdala, basal ganglia, RAS, other?

Sensory/Motor Pathway (SMP)

Subject - The condition, or area of body that is the subject of investigation.

CV - Is there a CV fault in regard to this SMP problem/symptom/severity?

PSPs - Pernicious synaptic patterns in scientific notation?

Tag - Is there a fault in tagging of afferent stimuli to stimulus of allergen?

SEOs - Sensory end organ/afferent processing faults?

CNS-P - Central nervous system processing fault(T, HT, HC, Cortical site)?

M-PrC - Motor processing fault in CNS; generally (T, HT, HC, Cortical site)?

MEO - Motor end organ fault?

S/P - Sympathetic/Parasympathetic nervous system fault?

Mod - Was the problem treated?

Mod - Were toxic agents treated?

Morphic Field Pathway

MF - Morphic Field

Use "+" or a check in box for yes, use "-" for no.

MFP:Y **Tx** - Intra NHMFB, and/or NHMFB/UJMF perturbations? Treated?

MFP-Anc: Y Tx - Present/Ancestral NHMFB perturbations? Treated?

MFP-MFP: Y Tx ? - Perturbation of NHMFB with any other MFs? ?: - What?

RFF: Y Tx ? - Is there a regional field fault within NHMFB? ?: - What?

? - Any other unlisted treatment provided?

Response: - What was the patient's immediate response to treatment?

Plan: - What is the future treatment plan for the patient?

TP: Toxin Pathway

Exo/EndTxn - Exotoxins (diffusible proteins) and endotoxins (lipopolysaccharides of cell wall) of pathogens bound to body tissues/chemicals and functioning as neurotoxins and tissue poisons.

Ig/I/C/CIC - Immunoglobulins, Tissue Fixed Immune Complexes, and Circulating Immune Complexes.

MBP - Metabolic byproducts of ingestants ie. caseomorphine

HMs - Heavy metals

VOC - Volatile organic compounds

HOC - Halogenated organic compounds - eg. pesticides

ExAn - Exogenous analogs of body hormones.

EnAn - Endogenous analogs of body hormones.

Other: _____ - other specified toxin?

%Clear _____ % cleared from original assessment - if TP previously treated.

21. Global Evaluation Form Query

Questioning, as we go through the global evaluation form for a patient, should initially be done "in the clear" meaning that the questions are delivered without reference to any particular symptom, or condition. This affords an opportunity to see how the patient is doing in a broader sense than would be found if we narrow the inquiry to that which is related to a specific condition. There may be reasons at times, particularly when using the global evaluation form in a follow up visit, to specify a condition and use the form to identify faults producing that condition and to establish priority for order of treatment.

1. **"Is there any fault in cognitive valuation compromising awareness of any aspect of your health?"** If yes:

- a. **"Is any level of the ACS aware of correct cognitive valuation in this regard?"** We accept axiomatically in NMT that some level of the ACS always has the information required to restore normal control to the body. So, the next step is the statement:
 - b. **"Would it be of benefit to treat at this time with the intent of making all levels of the ACS aware of correct cognitive valuation in this regard?"**
 - c. **"Would it be of benefit to treat at this time with the intent of correcting all faults in cognitive valuation?"**
- b. **"Would it be of benefit to treat at this time with the intent of making all levels of the ACS aware of correct cognitive valuation in this regard?"**
- c. **"Would it be of benefit to treat at this time with the intent of correcting all faults in cognitive valuation?"**

2. **"Is any level of the autonomic system fully aware of an optimal template for physical, mental, and emotional health?"** If yes:

- a. **"Are all levels of the ACS aware of this?"** If yes, proceed with the questioning. If no:
 - b. **"Would it be of benefit to treat with the intention of making all levels of the ACS aware of this?"** Treat as indicated and recheck for correction.

3. **"Is there any fault in cognitive valuation compromising recognition of infectious agents in any tissue system of the body?"** If you check a particular tissue system for infectious agents; but don't find any, and if this is at odds with your expectations for the patient, ask this CV question again specific to the tissue system in question.

- a. **"Is any level of the ACS aware of correct cognitive valuation in this regard?"** We accept axiomatically in NMT that some level of the ACS always has the information required to restore normal control to the body. So, the next step is the statement:
 - b. **"Would it be of benefit to treat at this time with the intent of making all levels of the ACS aware of correct cognitive valuation in this regard?"**
 - c. **"Would it be of benefit to treat at this time with the intent of correcting all faults in cognitive valuation?"**
- d. **"Is any level of the ACS aware of extracellular infectious agents resident in the following tissue systems: Liver/Pancreas/Gall Bladder/Gastrointestinal tract; Endocrine; Oral Cavity; Blood; Lymph; Cardiovascular; Reproductive; Urinary; Skin; Connective Tissue; Osseous; Respiratory/Sinuses; Eye; Ear; Nervous System; Unspecified tissue?** Register a yes/no for each choice.

Optionally at this point, and in order to perform a deeper investigation into this question we could ask for each tissue system that checks positive for harboring infectious agents if any level of the ACS is aware of infectious agents of the following forms: Bacteria/Nanobacteria/Mycoplasma, Fungus, Mold, Virus/Prion, Parasite.

- Each of the groups could be exploded into the separate form eg, virus, prion.
- a. **"Are all levels of the ACS aware of this?"** With regard to (the indicated pathogen form) the number of distinct varieties is: 1, 2, 3, ...?

5. **"Is any level of the ACS aware of intracellular infectious agents resident in the following tissue systems: Liver/Pancreas/Gall Bladder/Gastrointestinal tract; Endocrine; Oral Cavity; Blood; Lymph; Cardiovascular; Reproductive; Urinary; Skin; Connective Tissue; Osseous; Respiratory/Sinuses; Eye; Ear; Nervous System; Unspecified tissue?"**

Register a yes/no for each choice. Provide a field for the practitioner to indicate any unspecified tissue, organ, or location in the body that may be harboring infectious agents.

Optionally at this point, and in order to perform a deeper investigation into this question we could ask for each tissue system that checks positive for harboring infectious agents if any level of the ACS is aware of infectious agents of the following forms: Bacteria/Nanobacteria/Mycoplasma, Fungus, Mold, Virus/Prion, Parasite.

Each of the groups could be exploded into the separate form eg. virus, prion.

Also, another level of questioning may be added: "With regard to (the indicated pathogen form) the number of distinct varieties is: 1, 2, 3,?

In order to be able to put all responses for both intracellular and extracellular forms on the convenient single sheet global evaluation form simply use a forward slash "/" to separate extracellular/intracellular IA responses. In practice, as the investigation into each tissues system is made we can ask if any level of the ACS is aware of extracellular, and/or intracellular IA's in the particular system and use our slash if needed to separate one from the other, or if only intracellular IA's are present to indicate those results after the slash so they are recognized as intracellular only.

6. **"Is any level of the ACS aware of any inhalant, ingestant, contactant, or injectant in your exposure history capable of behaving as an allergenic trigger?"**

a. "Is there any fault in cognitive valuation compromising awareness of the full spectrum of allergenic triggers in each category?" If yes, proceed to sub-menu. If no, to next major question.

- i. **"Is any level of the ACS aware of correct cognitive valuation in this regard?"** We accept axiomatically in NMT that some level of the ACS always has the information required to restore normal control to the body. So, the next step is the statement,
 - ii. **"Would it be of benefit to treat at this time with the intent of making all levels of the ACS aware of correct cognitive valuation in this regard?"**
 - iii. **"Would it be of benefit to treat at this time with the intent of correcting all faults in cognitive valuation?"**
- b. **"Is any level of the ACS aware of the capacity for any of the following substances to behave as allergenic triggers?"** This question may be asked to specify particular substances. Just write such positive findings in the available space
7. **"Is any level of the ACS aware of a body tissue, body chemical, or breakdown product of the body capable of behaving as an allergenic trigger?"**
- a. **"Is there any fault in cognitive valuation compromising awareness of the full spectrum of allergenic triggers in each category?"** If yes, proceed to sub-menu. If no, to next major question.
 - i. **"Is any level of the ACS aware of correct cognitive valuation in this regard?"** We accept axiomatically in NMT that some level of the ACS always has the information required to restore normal control to the body. So, the next step is the statement,
 - ii. **"Would it be of benefit to treat at this time with the intent of making all levels of the ACS aware of correct cognitive valuation in this regard?"**

- iii. "Would it be of benefit to treat at this time with the intent of correcting all faults in cognitive valuation?"
- b. "Is any level of the ACS aware of the capacity for any of the following substances to behave as allergenic triggers?" This question may be asked to specify particular substances. Just write such positive findings in the available space

8. "With regard to (specify condition/complaint/process/area) is any level of the ACS aware of a fault in sensory/motor processing (causing, or contributing to the complaint, condition, or indicated phenomenon; or compromising optimal function of the specified tissue, body process, or function?" The practitioner must specify a particular complaint, condition, biological process, area of body, sensation that may be the subject of a fault in sensory/motor processing. There is an opportunity to specify a number of such entries and make a determination for each one and keep track of the response for each inquiry. It is necessary to be specific since any person is likely to have some SMP dysfunction, symptomatic or not.
9. "With regard to the following toxic agents is any level of the ACS aware of the following toxic agents coupled to body tissues, or chemicals:
Exotoxins, Endotoxins, Immunoglobulins, Tissue fixed immune complexes, Circulating immune complexes, Metabolic byproducts of ingestants, Heavy metals, Volatile organic compounds, Halogenated organic compounds, Exogenous analogs, Endogenous analogs
- Indicate positive findings for each category, and for any particular toxin specified.
10. "Is any level of the ACS aware of pattern perturbation within the nested hierarchy of morphic fields of the body; between the nested hierarchy of morphic fields of the body and the unified morphic field; between the nested hierarchy of morphic fields of the body and any other morphic field entity?" These questions are best asked as separate questions. The last question in the group requires that you specify a particular morphic field entity with which there may be pattern perturbation.
11. "Is any level of the ACS aware of a regional field fault (RFFF)?" If yes, go to the following sub-menu. If no the Comprehensive level global evaluation is complete.
- a. "Is there a regional field fault that is an anatomical region?"
b. "Is there a regional field fault that is a functional system?"
c. "Is there a regional field fault that is a metabolic system/pathway?"
d. "Is there a regional field fault that is a specific enzyme, hormone, neurotransmitter, genetic chemical?" This can be exploded to register a specific response to each category.
- e. The practitioner should be provided a field to specify any particular entity in the body that may constitute a regional field fault.
12. "?" The practitioner should be provided a field to specify some other aspect of consideration; an unspecified pathway they may be aware of, some other type of treatment, e.g. acupuncture meridian therapy that they may specify in a question asking if there is an indication the specified element may be of significance for the patient.
13. Response: This area is provided for those times when the form is used to chart treatment as well as document evaluation findings.
14. Plan: Specify a proposed treatment plan going forward for the patient.
15. The entries completed to this point should provide a global view of the patient as viewed through the several "windows" of body function we have specified here. At this point, we may now reference a particular condition, complaint, phenomenon (field required), and inquire "With regard to this condition is it the priority of the body to first treat: (here specify each of the above positive findings and note what is the priority for treatment) This can be repeated going forward for each subsequent step of treatment.
16. The result of what we have done is to provide a global view of body status, and to specify the particular NMT treatment pathway where treatment should begin.

22. Global Evaluation Form

Global Evaluation Form - NeuroModulation Technique Comprehensive Level														
Date:	Name - Last/First:	ICD-9 DX:												
/ /2003														
Subjective:														

Global CV/Fault? Tx'd?		Infectious Agent Pathway CV-Tx'd?		Global Health Template? Tx'd?												
Tx.	LPGI	End	Oral	Bld	Lym	CV	Rep	UT	Skin	CT	BN	URT	EYE	EAR	NS	?
Present?																
Aware?																
PSP:b10																
B/Nan/Myc																
Fungus																
Mold																
Virus/Pm																
Parasite																
Tagging																
Diffrntiate																
Crossover																
Modulate?																

Allergy Pathway (AP)

Exog: Y <input type="checkbox"/> N <input type="checkbox"/>	% of Prev. _____ %	Awr	PSPs b10	Tagging	Diff	XO	Mod
Y <input type="checkbox"/> N <input type="checkbox"/>							

Endo: Y <input type="checkbox"/> N <input type="checkbox"/>	% of Prev. _____ %	CV-Fit	Awr	Tagging	Diff	XO	Mod		
Y <input type="checkbox"/> N <input type="checkbox"/>									
Sensory/Motor Pathway (SMP)									
Subject	CV	PSPs	Tag	SEOs	CNS-P	M-Prc	MEO	S/P	Mod

23. Trouble Shooting Pathway

Or, What To Do When Things Don't Turn Out The Way You Planned

There is nothing magic, or mystical that makes one patient respond differently from the other patient with similar complaints who does not respond to NMT treatment. People are much more similar than they are different from one another. NMT is effective because it goes to the heart of the control systems of the body and permits assessment of faults and affords a structured way to address such problems. When I hear the question, "Are there patients NMT doesn't work for?" what I hear is, "Are there practitioners who are missing some aspect of their NMT investigation that would reveal key issues that prevent the normal execution of homeostatic controls in the patient?" And, to me the answer to that question is always, "Yes!" There may well come a time for any patient when any practitioner may come to a "go, no-go" fork in the road and has run out of options with NMT and has to tell the patient possibilities for NMT to help have been exhausted. Until you have performed the Trouble Shooting Pathway carefully, you won't have a valid indication that you have reached that point with any particular patient. So, please become very familiar with the thinking process of the Trouble Shooting Pathway and use it whenever progress is not as expected.

1. Make sure that every patient is evaluated in the beginning using the NMT Treatment Form, and use this form at regular intervals for re-examination. Perform the examination without reference to the patient's complaint at first. For example with IAP simply ask, "Is any level of the ACS aware of IAs in the X tissue system?" and check each system. The same is true for each area of the form except SMP where you will need to reference some particular symptom since everyone has some
2. What do you do when the patient has not improved, or complains of worsening symptoms? Use MRT to "Reverse Engineer" the situation to find the exact reason the patient is where they are in the recovery process:

SMP fault even if they have no complaint. Do this so you have a more complete picture of all dysfunction that may be influencing the patient.

- a. Don't just shoot in the dark when treating someone with a serious Problem. Take the time to follow a plan prioritized by the results of a global evaluation of the sort that the NMT Global Evaluation Form provides.
- b. Now that you have established an inventory of all that is wrong with the patient, go back through the positive findings to establish treatment priority with regard to the patient's complaint. The whole process of going through this general MRT and then finding the priority for current treatment takes less than 5 minutes, but it puts you on the most effective course for treatment and informs you of the scope of the patients health challenges.
- c. If you seem to be stuck symptomatically, get out an NMT Treatment Form and re-evaluate the patient. Don't be surprised if this brings to light information that was missed in a previous evaluation. Remember that MRT has limitations and that a strategy of re-evaluating at some regular interval, or when response seems slower than expected with the NMT treatment form, will compensate for these limitations by serially assessing ACS function.

a. Possibilities:

- i. Identify specifics. Don't let the patient get caught up in the melodrama of illness. Don't let them ramble on with indirect answers to your specific questions about particulars of their case. Be diplomatic but firm. You should have noted specific parameters of their illness on your first exam. Using the VAS/10 scale to establish reference points is helpful. Attempt to determine the difference between original and current severity with regard to particular complaints. Make note of new complaints. Check for cognitive valuation faults with regard to perception of symptoms of the condition. Sometimes patients state that they are not better, or perhaps worse; yet careful investigation reveals that what they are really saying is that they aren't as much better as they expected, or they are better in some ways and not in others. Use the findings of actual worsening, or failure of improvement in symptoms as reference points to investigative statements as this exam proceeds.

- ii. Other factors may be involved. Some things are "temporally" related and some are "causally" related. Just because you treated yesterday and the patient has new, or worse symptoms today means nothing until a relationship between these symptoms and NMT treatment is established.

1. "With regard to the referenced aggravation, is this caused by a response to NMT treatment (specify pathway if more than one) performed on (specify date).
 - a. "Is this aggravation due to incomplete processing of the referenced treatment?"
 - b. "Is this aggravation due to the referenced treatment being inappropriate at the time it was performed?"
 - c. "Is this aggravation due to release of toxins as a result of the referenced treatment?"
 - d. Ask similarly structured questions that seem appropriate until you determine what aspect of response to the treatment is problematic.
2. "With regard to the referenced aggravation, is this caused by any intervening event, exposure, or effect in your experience unrelated to the referenced NMT treatment?"
 - a. If so, construct appropriate investigatory statements to determine exactly what it is that is aggravating the patient.

- iii. Treatment may have failed. On follow up visits, always check what you have previously done. If you have done allergy treatment, check to see if – any level of the ACS is aware of any exogenous/endogenous substances still behaving as allergenic triggers, if there are any previously active allergenic triggers still the subject of inappropriate tagging, or crossover autoimmune response. If you have treated IAs check, to see that – all levels of the ACS are aware of all IAs in the tissue system treated – that the immune system is targeting/destroying all IAs – that there is no crossover response. If you treated SMP, check to make sure no elements of the SMP are still active. Check relative degree or % of clearing when re-evaluating IAP, or AP for any element of the pathway if it hasn't cleared completely.
- iv. Neurotoxins: Be aware that if a patient has had IAs treated that the Toxin Pathway (TP) needs to be checked. This aspect of TP use is something new, so please keep this in your awareness. The TP needs to be modified slightly to get an appropriate response. You need to ask, "Is any level of the ACS aware of the existence, identity, and location of all endotoxins from pathogens which are bound to tissues, or chemicals of the nervous system and functioning as neurotoxins?" You are unlikely to pick this up without such a specific reference. You may also wish to separately ask, "Is any level of the ACS aware of the existence, identity, and location of all endotoxins from pathogens which are bound to tissues, or chemicals of any tissue system of the body and contributing to referenced symptoms?" When such endotoxins are identified, simply perform the TP adding reference to these endotoxins as you might reference a particular heavy metal. Also, you need to finish the TP with the following statement: "Would it be of benefit to treat at this time with the intent of causing the ACS to inhibit the re-uptake of all referenced neurotoxins from the gut?" Of course, this is expected to be a "yes" and you will treat for this to maximize the clearing of such toxins from the body.
- v. Cognitive Valuation! Always, always check to see if there is a fault in cognitive valuation with regard to the perception of continued, or worsened symptoms and make any appropriate correction in CV. Also check cognitive valuation when the patient appears improved with regard to observed capacity for movement, improved range of motion of a joint, or reduced spasticity and yet the patient states that their subjective experience of discomfort is unchanged. Dissonance between the conscious awareness of the condition and improved ACS function suggests a cognitive valuation issue.
- vi. PSPs! A very big issue with people who are very sick. Being sick is much more than bugs, toxins, allergies, and sensory/motor faults. Illness serves many purposes and getting well may be fraught with risks for the patient. Maybe it means getting back to a job they hate, having to relate to a family member the illness shields them from, or causing them to have

to become productive and pull their weight. All sorts of possibilities exist here. Investigate this creatively and recheck problem areas frequently as the PSP issues powerful enough to make, or keep a person ill may run quite deep.

1. The illness may serve to externally express serious issues the patient has with guilt, shame, self-loathing, and disgust. You have some tools from the NMT Comprehensive Seminar, and more specific tools will be presented in the NMT Advanced Seminar. Consider that it may be advised to refer the patient to a qualified therapist for counseling concurrent to the NMT treatment you are providing.

2. Neurotic patients appear in our practices from time to time. Be aware that seriously neurotic patients don't get well until their deep-seated psychological problems are addressed. Also, be aware that seriously neurotic patients represent a significant medico-legal risk, and may poison your practice and reputation if you allow them to lead you down a path in which you provide treatment that doesn't resolve their complaints and permits them to feel justified in turning on you. Be cognizant of patients who are overly solicitous of you in the beginning and before results are at hand, particularly if they may have previously confided to you that they became angry with other providers who failed them.

- vii. Sufficient treatment may not have been accomplished, yet. Not all cases of similar complaints follow the same path with regard to resolution. I have seen a few patients with longstanding problems such as RA, or serious bowel disease that showed no response symptomatically after 5-6 visits. MRT indicated treatment was successful. Have confidence if you have checked and found previous NMT treatment was successfully completed, especially with people who have been very sick, for a very long time. These people turned the corner within a visit or two more and progress then continued apace.
- viii. Sufficient time may not have elapsed. If you have successfully taken out the underpinnings of disease by IAP, AP, TP, then it may simply be a matter of time. The tissue healing you have enabled by getting rid of IAs, etc. may not yet have progressed sufficiently to register significant symptom change in the patient.

Identify priorities for treatment. "With regard to the symptoms you have noted today, is the priority for treatment at this time: IAP, Endo AP, Exo AP, SMP,...etc?" Then determine particulars, ie. tissue system for IAP target, particular nature of Endo AP triggers, particular Exo AP triggers, etc. You will structure corrective statements for correction globally, as usual; but it is

always helpful to make mention of particular offending substances you have identified as problematic, eg. in Endo AP perhaps the immune system has become sensitized to mucous membrane of the upper respiratory tract, or synovium in arthritis during the period of active Exo. allergy, or IA activity.

24. NMT Pathway Cores

The following section provides you with a condensed version of all pathways for your convenience in actual use of the pathways. The pathways presented earlier in the manual contain much explanation and description that is important to learn properly.

The following pathway cores are also available in heavy duty 10 millimeter, two-sided plastic laminate. They are color coded for each pathway and printed in alternating colors within each pathway for visual ease of use. They are printed in small enough type so that the series could be kept to a small number of sheets, yet large enough for most to read without reading glasses. The entire set of pathways is condensed to seven two-sided laminated pages and is durable for daily use in the office. It also looks very professional and allows the practitioner to forgo having a large manual open to consult while treating.

A large four color printed and plastic laminated chart of all pathways has also been produced and is available.

All of these materials may be ordered at the NMT Online Store on the NMT website, or just call the NMT office at (541) 567-4200.

NMT: The Trouble Shooting Pathway

Or What To Do When Things Don't Turn Out The Way You Planned

1. Make sure that every patient is evaluated in the beginning using the NMT Treatment Form, and use this form at regular intervals for re-examination. Perform the examination without reference to the patient's complaint at first. For example with IAP simply ask "Is any level of the ACS aware of IAs in the X tissue system?" and check each system. The same is true for each area of the form except SMP where you will need to reference some particular symptom since every one has some SMP fault even if they have no complaint.
 - a. Follow an MRT prioritized plan informed by a global assessment from the NMT Treatment Form data.
 - b. Use the result of the global assessment to MRT for priority of treatment with/without reference to complaint.
 - c. If you seem to be stuck symptomatically get out an NMT Treatment Form and re-evaluate the patient. Don't be surprised if this brings to light information that was missed in a previous evaluation. Remember that MRT has limitations. Use a strategy of re-evaluating at some regular interval, or when response seems slower than expected, or if symptoms aggravate with the NMT treatment form. This will compensate for MRT limitations by serially assessing ACS function.
2. What to do when the patient has not improved, or complains of worsening symptoms? Use MRT to "Reverse Engineer" the situation to find the exact reason the patient is where they are in the recovery process:
 - a. Possibilities
 - i. Identify specifics: Don't let the patient get caught up in the melodrama of illness. Don't let them ramble on with indirect answers to your specific questions about particulars of their case. Be diplomatic; but firm. You should have noted specific parameters of their illness on your first exam. Using the VAS/10 scale to establish objective reference points is helpful. Attempt to determine the difference between original and current severity with regard to particular complaints. Make note of new complaints. Check for cognitive valuation faults with regard to perception of symptoms of the condition. Sometimes patients state that they are not better, or perhaps worse; yet careful investigation reveals that what they are really saying is that they aren't as much better as they expected, or they are better in some ways and not in others. Use the findings of actual worsening, or failure of improvement in symptoms as reference points to investigate statements as this exam proceeds.
 - ii. Other factors may be involved. Just because you treated yesterday and the patient has new, or worse symptoms today means nothing until a relationship between these symptoms and NMT treatment is established.
 1. "With regard to the referenced aggravation is this caused by a response to NMT treatment (specify pathway if more than one) performed on specify date, If no, next Q. If yes, ask:
 - a. "Is this aggravation due to incomplete processing of the referenced treatment?"
 - b. "Is this aggravation due to the referenced treatment being inappropriate at the time it was performed?"
 - c. "Is this aggravation due to release of toxins as a result of the referenced treatment?"
 - d. Ask similarly structured questions that seem appropriate until you determine what aspect of response to the treatment is problematic.

2. "With regard to the referenced aggravation is this caused by any intervening event, exposure, or effect in your experience unrelated to the referenced NMT treatment?"
 - a. If so, construct appropriate investigatory statements to determine exactly what it is that is aggravating the patient.
 - iii. Treatment may have failed. On follow up visits always check what you have previously done. If you have done allergy treatment check to see if - any level of the ACS is aware of any exogenous/endogenous substances still behaving as allergenic triggers, if there are any previously active allergenic triggers still the subject of inappropriate tagging, or crossover autoimmune response. If you have treated IAs check to see that - all levels of the ACS are aware of all IAs in the tissue system treated - that the immune system is largening/destroying all IAs - that there is no crossover response. If you treated SMP check to make sure no elements of the SMP are still active. Check relative degree or % of clearing, when re-evaluating IAP, or AP for any element of the pathway if it hasn't cleared completely.
 - iv. Neurotoxins: Be aware that if a patient has had IAs treated that the TP needs to be checked. Please keep this in your awareness! The TP needs to be modified slightly to get an appropriate response. You need to ask "Is any level of the ACS aware of the existence, identity, and location of all exotoxins from pathogens which are bound to tissues, or chemicals of the nervous system and functioning as neurotoxins?" You are unlikely to pick this up without such a specific reference. You may also wish to separately ask, "Is any level of the ACS aware of the existence, identity, and location of all exotoxins from pathogens which are bound to tissues, or chemicals of any tissue system of the body and contributing to referenced symptoms (compromising optimal health)?" When such exotoxins are identified simply perform the TP adding reference to these exotoxins as you might reference a particular heavy metal. Also, you need to finish the TP with the following statement: "Would it be of benefit to treat at this time with the intent of causing the ACS to inhibit the re-upake of all referenced neurotoxins from the GI tract/UT/skin?" Of course, this is expected to be a "yes" and you will treat for this to maximize the clearing of such toxins from the body.
 - v. Cognitive Valuation: Always, always check to see if there is a fault in cognitive valuation with regard to the perception of continued, or worsened symptoms and make any appropriate correction in CV. Also check cognitive valuation when the patient appears improved with regard to observed capacity for movement, improved range of motion of a joint, or reduced spasticity and yet the patient states that their subjective experience of discomfort is unchanged. Dissonance between the conscious awareness of the condition and improved ACS function suggests a cognitive valuation issue.
 - vi. PSPs: A very big issue with people who are very sick. Being sick is much more than bugs, toxins, allergies, and sensory/motor faults. Illness serves many purposes and getting well may be fraught with risks for the patient. Maybe it means getting back to a job they hate, having to relate to a family member the illness shields them from, causes them to have to become productive and pull their weight. All sorts of possibilities exist here. Investigate this creatively and recheck problem areas frequently as the PSP issues powerful enough to make, or keep a person ill may run quite deep.
 1. The illness may serve to externally express serious issues the patient has with guilt, shame, self-hatred and disgust, from the NMT Advanced Seminar. Consider that it may be advised to refer the patient to a qualified therapist for counseling concurrent to the NMT treatment you are providing especially serious issues like abuse, depression, etc.

2. Neurotic patients appear in our practices from time to time. Be aware that seriously neurotic patients don't get well until their deep-seated psychological problems are addressed, and may pose medicolegal risks.
Consider referral early if unresponsive!
 - vii. Sufficient treatment may not have been accomplished, yet, and may simply require more time/treatment to succeed. Have confidence if you have checked and found previous NMT tx was successfully completed, especially with people who have been very sick, for a very long time. These people may turn the corner within a visit, or two more and then progress space. You have a tool with the TSP to evaluate objectively the response to your NMT treatments.
 - viii. Sufficient time may not have elapsed. If you have successfully taken out the underpinnings of disease by IAP, AP, TP then it may simply be a matter of time to achieve tissue healing, clearing of toxins and other time related changes.
 - ix. Identify priorities for treatment. "With regard to the symptoms you have noted today, is the priority for treatment at this time: IAP, Endo AP, Exo AP, SMP,...etc?" Then determine particulars, i.e. tissue system for IAP target, particular nature of Endo AP triggers, particular Exo AP triggers, etc. You will structure corrective statements for correction globally, as usual; but it is always helpful to make mention of particular offending substances you have identified as problematic, e.g. in Endo AP perhaps the immune system has become sensitized to mucous membrane of the upper respiratory tract, or synovium in arthritis during the period of active Exo. allergy, or IA activity.

NMT: Pernicious Synaptic Patterns (For Any Pathway)

i. "Are there active, inactive, or latent PSPs associated with this complaint?" Use semantic cues, position, posture, muscle challenge, and other methods taught to provoke PSPs to a level of awareness to facilitate treatment.

a. "Is there any fault in cognitive valuation compromising the perception of the full spectrum of PSPs related to this condition?"

i. "Is any level of the ACS aware of correct cognitive valuation with regard to this?"

ii. "Are all levels of the ACS aware of correct cognitive valuation with regard to this?"

iii. "Would it be of benefit to treat with the intention of making all levels of the ACS aware of correct cognitive valuation in this regard?"

iv. "Would it be of benefit to treat with the intention of correcting all faults in cognitive valuation at this time?"

b. "With regard to the number of active, inactive, and latent PSPs is the number 10 to the Xth?"

Note that very large numbers will have an exponent that is itself expressed as 10 to the X power. So, very large numbers may be expressed as 10 to the 10 to the X.

c. "Would it be of benefit at this time to treat with the intention of making all levels of the ACS fully aware of the identity and existence of these PSPs, that they are producing harmful behavior, and that they must be disorganized to restore normal function?"

d. Perform serial rechecks within a visit session using the methods you know for provoking them to awareness until no further PSPs are evoked, or satisfactory symptom improvement is achieved.

e. Future Vigilance Statement may be use: "Would it be of benefit to treat with the intention of causing the ACS to maintain an awareness for any future presentation of pernicious synaptic patterns (related to this condition), and upon recognition to cause the ACS to recognize the identity and existence of these pernicious synaptic patterns, the fact they are causing harmful behavior, and that they must be disorganized to permit a return of normal function?"

NMT: The Sensory/Motor Pathway (SMP)

1. "With regard to the (specify the sensory/motor complaint, dysfunction, tissue, organ, or system) is there any fault in sensory/motor control causing, or contributing to this condition (dysfunction of tissue, or system, etc.)?"
 - a. "Is there any role of an infectious agent/allergic phenomena (endogenous, or exogenous allergen)/ crossover autoimmune phenomena between infectious agent and body tissue/ or an endogenous/exogenous allergen and body tissue in (specify problem)? Tx per indicated pathway."
 2. "Is there any fault in cognitive valuation with regard to any aspect of the condition?"
 - a. "Are all levels of the ACS fully aware of correct cognitive valuation of all aspects of this condition?"
 - i. "Is any level of the ACS fully aware of correct cognitive valuation of all aspects of this condition?"
 1. "Would it be of benefit to treat at this time with the intention of making all levels of the ACS fully aware of the correct cognitive valuation of all aspects of this condition?"
 - i. "Would it be of benefit to treat at this time with the intention of correcting all faults in cognitive valuation of the condition?"
 - ii. "Is there any fault in cognitive valuation compromising the perception of the full spectrum of PSPs related to this condition?"
 - i. "Is any level of the ACS aware of correct cognitive valuation with regard to this?"
 - ii. "Would it be of benefit to treat with the intention of making all levels of the ACS aware of correct cognitive valuation/correcting all faults in cognitive valuation with regard to this?" (as separate, or combined statement)
 2. "Are there active, inactive, or latent PSPs associated with this complaint?"
 - a. "Is there any fault in cognitive valuation compromising the perception of the full spectrum of PSPs related to this condition?"
 - i. "Is any level of the ACS aware of correct cognitive valuation with regard to this?"
 - ii. "Would it be of benefit to treat with the intention of making all levels of the ACS fully aware of the identity and existence of these PSPs, that they are producing harmful behavior, and that they must be disorganized to restore normal function?"
 3. "With regard to the number of active, inactive and latent PSPs is the number 10 to the X?"
 - c. "Would it be of benefit at this time to treat with the intention of making all levels of the ACS fully aware of the identity and existence of these PSPs, that they are producing harmful behavior, and that they must be disorganized to restore normal function?"
 4. "Is there any fault in the tagging of afferent stimuli relating to the perception of this condition?"
 - i. "Is this afferent specific/global?"
 - b. "Are all levels of the autonomic control system fully aware of appropriate tagging protocol for the indicated stimuli?"
 - i. "Is any level of the ACS fully aware of appropriate tagging protocol for the indicated stimuli?"

- ii. "Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of appropriate tagging protocol for these stimuli?"
- c. "Are inappropriate tagging processes relative to the indicated stimuli occurring at (check for the involved nervous system site which will usually be amygdala, or basal ganglia – possibly RAS?)"
 - i. "Would it be of benefit at this time to treat with the intention of correcting all inappropriate tagging of afferent stimuli occurring at (specified site)"
 5. "Is there a fault in any sensory end organ (SEO) contributing to this condition?" Eg. "Is there a fault in an SEO of fascia?" "Is this a stretch receptor/pain receptor?" "Is this receptor set at an inappropriate high/low threshold of sensitivity?"
 - a. "With regard to (the indicated SEO) is its afferent being inappropriately facilitated, or inhibited?" Determine the site of this action – generally T, HT, HC
 - b. "Can you register this fault?" Continue until all involved SEOs have been discovered if stacking SEOs.
 - c. "Would it be of benefit to treat at this time with the intention of resetting (specify SEOs, or "the indicated SEO(s)") to a higher/lower threshold of stimulation, and to stop all inappropriate facilitation/inhibition at the (specify CNS site, or "indicated CNS processing sites")?"
 - d. Alternatively, if stacking SEOs: "Would it be of benefit at this time to treat with the intention of resetting all indicated sensory end organs to optimal sensitivity levels, and to stop all inappropriate facilitation and inhibition at the indicated CNS processing areas."
 6. "Is there any fault in central nervous system processing causing, or contributing to this condition?" Often there is origin at RAS, and target of T, HT, or HC. Secondary path may exist in which the target of the first pathway is now the origin, with another processing site, often the T as target. This may be another forebrain nucleus Eg. T – HC; or it may involve a path from a forebrain nucleus to one of the cortical areas.
 7. "Is there any fault in sympathetic, or parasympathetic processing causing, or contributing to this condition?" Identify dysfunction and construct corrective statement, eg. "Would it be of benefit to treat at this time with the intention of stopping all inappropriate facilitation of sacral parasympathetic ganglia at the hypothalamic (HT) level." Or, "Would it be of benefit to stop all facilitation of sympathetic efferents from the stellate ganglia (or, a more general statement referencing any involved sympathetic ganglia) to muscle wall of cerebral vasculature structures consistent with optimal function?"

8. "Is there any fault in motor processing causing, or contributing to this condition?" Assess CNS facilitation and treat, eg. "Would it be of benefit to treat at this time with the intention of stopping all inhibition of motor efferents to antagonist muscles in the area of complaint at the thalamus level?"
9. "Is there any fault in a motor end organ causing, or contributing to this condition?" Assess high/low threshold of stimulation and treat, eg. "Would it be of benefit to treat at this time with the intention of resetting the indicated motor end organ of dermal sweat gland to a high threshold of stimulation consistent with optimal function?"
10. "Is there any other fault in autonomic regulation causing, or contributing to this condition?"

NMT: The Allergy Pathway (AP)

1. "With regard to the referenced symptoms/condition are there (Or, in the clear, "Is any level of the ACS aware of..." any inhalant, ingestant, contactant, or injectant substances (exogenous allergens) in your exposure history which are capable of behaving as allergenic triggers? (...causing or contributing to this condition?") Always check, "With regard to the referenced symptoms/condition are there (Or, in the clear, "Is any level of the ACS aware of..." any body tissues, body chemicals, or breakdown products of the body (endogenous allergens) which are capable of behaving as allergenic triggers? (...causing or contributing to this condition?")
 2. "Are there active, inactive, or latent PSPs associated with this complaint?" Perform appropriate correction.
 3. "Are all levels of the ACS fully aware of the identity and existence of a.) all exogenous allergens (inhalant, ingestant, contactant, or injectant substances), or b.) all endogenous allergens (any body tissue, body chemical, or breakdown product of the body)?"
 - a. "Is any level of the ACS fully aware of the existence and identity of all referenced allergens
 - b. "Is the immune system fully aware of the existence and identity of all referenced allergens?"
 - c. "Would it be of benefit to treat with the intention of making all levels of the ACS fully aware of the existence and identity of all referenced allergens, and to communicate this information completely, and immediately to the immune system?"
 4. "Is there any fault in the tagging of afferent stimuli specific to any, or all referenced allergenic triggers in your exposure history?"
 - a. "Is this fault afferent path specific?" If so, find issue(s) and afferent(s). If not, the fault is global (most commonly).
 - b. "Are all levels of the ACS fully aware of appropriate tagging protocol for these stimuli?"
 - i. "Is any level of the ACS fully aware of appropriate tagging protocol for these stimuli?"
 - ii. "Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of appropriate tagging protocol for all allergen triggers?"

5. "Are all levels of the ACS fully aware of the distinction between all referenced allergens and all body tissues?"
 - a. "Is any level of the autonomic control system fully aware of the distinction between all referenced allergens, and all body tissues?"
 - b. "Would it be of benefit to treat at this time with the intention of causing all levels of the ACS to be fully aware of the distinction between all referenced allergens, and all body tissues?"
6. "Is there any crossover autoimmune response at this time between any allergen and any body tissue?"
 - a. "Is this crossover autoimmune reaction caused by a cross linking of data at the (reticular activating system basal ganglia, and occasionally amygdala)?"
 - b. "Do all levels of the ACS have sufficient information to correct this cross-linked data?"
 - i. "Does any level of the ACS have sufficient information to correct this cross-linked data?"
 - ii. "Would it be of benefit at this time to treat with the intent of making all levels of the ACS fully aware of the information necessary to correct the indicated cross linking?"
 - iii. "Would it be of benefit to treat at this time with the intention of correcting all cross-linked data in the (specified brain site) causing, or contributing to this crossover autoimmune response between referenced allergens, and all body tissues?"
7. Consider faults in elements of the Sensory/Motor Pathway for the allergy patient. eg., mucosal chemoreceptors
8. Remember that PSPs may reproduce as real and severe a set of allergy symptoms even after the patient has once reached a symptom free status should there be sufficient PSPs that arise to active levels. Recheck the AP if symptoms return assessing any component of the pathway that may prove to be incompletely corrected after the patient is re-exposed to their usual environment. Some patients may experience PSP related symptom return even after the AP is otherwise completely clear.

NMT: The Infectious Agent Pathway (IAP)

Always Begin This Pathway With A General Check For Any Fault In Cognitive Valuation Compromising Awareness Of The Presence Of Infectious Agents.

- 1) "With regard to (state problem) is there an infectious agent causing, or contributing to this condition?"
Or, in the clear, "Is any level of the ACS aware of infectious agents (check intracellular IAs separately) resident in (specify organ, tissue system, or other structure). Be aware of characteristics of types:
Bacteria/Mycoplasm/Nanobacteria, Mold, Fungi, Virus/Prion, Amoeba, Parasite.
- 2) "Are there active, inactive, or latent PSPs associated with this complaint?" Perform the appropriate correction.
- 3) "Are all levels of the ACS fully aware of the existence, identity, and location of this infectious agent?"
 - a) "Is any level of the ACS fully aware of the existence, identity, and location of this infectious agent?"
 - b) "Would it be of benefit to treat at this time with the intention of causing all levels of the ACS to be fully aware of the existence, identity, and location of this infectious agent?"
 - c) "Would it be of benefit at this time to treat with the intention of instructing the immune system to accurately and completely identify, locate, target, and destroy this infectious agent wherever it exists in the body?" To minimize "Hering", consider adding "...At a rate compatible with the body's capacity to process the resulting toxins?"
- 4) "Is the immune system actively targeting and destroying this infectious agent?"
- 5) "Will any of the infectious agent survive this process of the immune system?" If no, proceed to the question regarding tagging of afferent stimuli. If yes, ask "Have all previous steps of the infectious agent pathway been completed successfully?"
 - a) "Is the infectious agent susceptible to a properly targeted immune system attack?"
 - b) "Is there any fault in the function, or regulation of the immune system?"
- 6) "Is there any fault in the tagging of afferent stimuli related to the perception of the infectious agent?"
 - a) "Is this fault afferent specific?"
 - b) "Are all levels of the ACS fully aware of appropriate tagging protocol for these stimuli?"
 - i) "Is any level of the ACS fully aware of appropriate tagging protocol for these stimuli?"
 - ii) "Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of appropriate tagging protocol for these stimuli?"
 - c) "Are inappropriate tagging processes relative to these stimuli occurring at (specified nervous system site which will usually be amygdala, basal ganglia, or reticular activating system)?"
 - i) "Would it be of benefit at this time to treat with the intention of correcting all inappropriate tagging of afferent stimuli associated with the perception of the indicated infectious agent occurring at (specified site)?"
- 8) "Are all levels of the ACS able to accurately differentiate body tissue from pathogen?"

- a) "Is any level of the ACS able to accurately differentiate body tissue from pathogen?"
- b) "Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of the distinction between infectious agent and body tissue, and to communicate this information completely and immediately to the immune system?"
- 9) "Is there a crossover autoimmune response between infectious agent and body tissue?"
 - a) "Is this crossover autoimmune reaction caused by a cross linking of data at the (reticular activating system, basal ganglia, and occasionally amygdala)?"
 - b) "Do all levels of the ACS have sufficient information to correct this cross-linked data?"
 - i) "Does any level of the ACS have sufficient information to correct this cross-linked data?"
 - ii) "Would it be of benefit at this time to treat with the intent of making all levels of the ACS fully aware of the information necessary to correct the indicated cross linking?"
 - c) "Would it be of benefit to treat at this time with the intention of correcting all cross-linked data in the (specified brain site) causing, or contributing to this crossover autoimmune response between referenced infectious agents, and any body tissues?"
- 10) "Is there any fault in the sensory/motor pathways associated with the infectious agent phenomena?"
- 11) "Is there an autoimmune inflammatory response to any body tissue, body chemical, or breakdown product of the body?" If so, you will need to treat the endogenous AP. Check TP as most IAs produce exo/endo toxins.

Intracellular Infectious Agents – Check and treat these after extracellular IAs have been successfully treated.

- Use the following treatment statement for intracellular IAs:
- "Would it be of benefit at this time to treat with the intention of instructing the immune system to accurately and completely identify, locate, target, and destroy this infectious agent wherever it exists in the body consistent with the safety of the host tissue?"
- 7) "Is there any fault in the tagging of afferent stimuli related to the perception of the infectious agent?"
 - a) "Is this fault afferent specific?"
 - b) "Are all levels of the ACS fully aware of appropriate tagging protocol for these stimuli?"
 - i) "Is any level of the ACS fully aware of appropriate tagging protocol for these stimuli?"
 - ii) "Would it be of benefit at this time to treat with the intention of causing all levels of the ACS to be fully aware of appropriate tagging protocol for these stimuli?"
 - c) "Are inappropriate tagging processes relative to these stimuli occurring at (specified nervous system site which will usually be amygdala, basal ganglia, or reticular activating system)?"
 - i) "Would it be of benefit at this time to treat with the intention of correcting all inappropriate tagging of afferent stimuli associated with the perception of the indicated infectious agent occurring at (specified site)?"

NMT: The Exogenous Analog Pathway (EAP)

- 1) "Are all levels of the ACS fully aware of the distinction between naturally occurring control chemicals of the body, and exogenous analogs of such control chemicals?"
 - a) "Is any level of the ACS fully aware of the distinction between naturally occurring control chemicals of the body, and exogenous analogs of such control chemicals?"
 - b) "Would it be of benefit at this time to treat with the intention of making all levels of the ACS fully aware of the distinction between naturally occurring control chemicals of the body, and exogenous analogs of such chemicals?"
- 2) "Is the ACS at any level aware of the existence of exogenous analogs in the body, and the existence, identity, and location of cells in the body with control chemical receptor sites coupled to exogenous analogs?"
 - a) "Are all levels of the ACS aware of this?"
 - b) "Would it be of benefit to treat with the intention of making all levels of the ACS aware of this?"
- 3) "Is it within the capacity of the ACS to force a purging and release of these toxic agents from their binding sites on body tissues and body chemicals, facilitate their transport away from the tissues, and expedite their degradation and elimination from the body?"
- 4) "Would it be of benefit to treat with the intent of causing the ACS to force the purging of all exogenous analogs from all receptor sites on body tissues and chemicals, to facilitate the transport of these substances from the tissues, and expedite the degradation /elimination of these from the body?"
- 5) "Would it be of benefit at this time to treat with the intention of causing the ACS to perpetuate a selective inhibition of the re-uptake of any such exogenous analogs from the digestive tract?"
- 6) "Would it be of benefit at this time to treat with the intention of causing the ACS to perpetuate an awareness for all future presentations of coupled, and uncoupled exogenous analogs and upon recognition to force the purging of all exogenous analogs from all receptor sites on body tissues and chemicals, to facilitate the transport of these substances from the tissues, and expedite the degradation /elimination of these from the body?"

NMT: The Toxin Pathway

- 1) "Is the ACS at any level fully aware of the existence, identity, and location in the body of any of the following chemical agents bound to body tissues, or body chemicals and compromising optimal health? "
 - Ex/o/endo toxins of pathogen origin bound to elements of the nervous system, or other body tissues and chemicals (and functioning as neurotoxins, or other tissue poison).
 - Immunoglobulins/Immune Complexes (IC's)/Circulating Immune Complexes (CIC's)
 - Metabolic breakdown products of ingestaants (eg/caseinomorphines from milk)
 - Heavy metals
 - Halogenated organic compounds (pesticide/herbicide), VOCs (volatile organic compounds)
 - Pain producing, or potentiating endogenous chemicals
 - Other specified toxic agents
- Make note of positive findings regarding categories of toxins present.
- 2) "Are all levels of the ACS aware of the existence, identity, and location of all such toxic agents (specify categories, or specific toxins)?"
 - a) "Would it be of benefit at this time to treat with the intention of making all levels of the ACS aware of the existence, identity, and location of all such toxic agents?"
- 3) "Is it within the capacity of the ACS to force a purging and release of these toxic agents from their binding sites on body tissues and body chemicals, facilitate their transport away from the tissues, and expedite their degradation and elimination from the body?"
- 4) "Should all referenced toxic agents be the subject of treatment at this time?" If yes, proceed to the next question. If no, proceed to the following sub-menu:
 - a) "Should the following toxic agents be the subject of treatment at this time: (specify toxins found in earlier MRT)"
- 5) "Would it be of benefit at this time to treat with the intention of causing the ACS to force a purging and release of these toxic agents (specify appropriate toxins) from their binding sites on body tissues and chemicals, facilitate their transport away from the tissues, and expedite their degradation and elimination from the body; and to do so consistent with the body's capacity to safely tolerate this action?"
- 6) "Would it be of benefit at this time to treat with the intention of causing the ACS to perpetuate a selective inhibition of the re-uptake of any such toxic agents from the gastrointestinal tract, urinary tract, and skin?"
- 7) "Would it be of benefit at this time to treat with the intention of causing the ACS to perpetuate an ongoing awareness for any future presentation of such toxic agents and upon recognition to force a purging and release of these toxic agents from their binding sites on body tissues and chemicals, facilitate their transport away from the tissues, and expedite their degradation and elimination from the body; and to do so consistent with the body's capacity to safely tolerate this action?"

NMT: The Morphic Fields Pathway

1) "Is any level of the ACS fully aware of the existence, and identity of the nested hierarchy of morphic fields of the body, and its constituent subsets?" "Are all levels of the ACS aware of this?"

a) "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?"

2) "Is any level of the ACS aware of pattern perturbation in morphic resonance of the nested hierarchy of morphic fields of the body and its constituent subsets?" "Are all levels of the ACS aware of this?"

a) "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?"

3) "Is the ACS at any level aware of an optimal pattern of resonance for the nested hierarchy of morphic fields of the body, and its constituent subsets?" "Are all levels of the ACS aware of this?"

a) "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?"

4) "Would it be of benefit to treat at this time with the intent of causing the ACS to synchronize the nested hierarchy of morphic fields of the body, and its constituent subsets to an optimal pattern of resonance?"

5) "Is any level of the ACS fully aware of the existence, and identity of the unified morphic field, and its constituent subsets?" "Are all levels of the ACS aware of this?"

a) "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?"

6) "Is any level of the ACS aware of pattern perturbation between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets?" "Are all levels of the ACS aware of this?"

a) "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?"

7) "Is any level of the ACS fully aware of an optimal pattern of resonance between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets?" "Are all levels of the ACS aware of this?"

a) "Would it be of benefit to treat with the intention of causing all levels of the ACS to be fully aware of this?"

8) "Would it be of benefit to treat with the intention of causing the ACS to synchronize the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets to an optimal pattern of resonance?"

9) "Would it be of benefit to treat with the intention of causing the ACS to maintain vigilance for any future pattern perturbation within the nested hierarchy of morphic fields of the body, and its constituent subsets, and upon recognition to synchronize these systems to an optimal pattern of morphic resonance?" If

yes, treat for this statement, recheck, and proceed to the next question. If no, investigate possible reasons for this (cognitive valuation, TSPs, MRT).

10) "Would it be of benefit to treat with the intent of causing the ACS to maintain vigilance for any future presentation of pattern perturbation between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets, and upon recognition to resynchronize these systems to an optimal pattern of morphic resonance?"

Alternatively for 9 & 10, "Would it be of benefit to treat with the intention of causing the ACS to maintain vigilance for any future pattern perturbation within, and between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the unified morphic field, and its constituent subsets, and upon recognition to resynchronize these systems to an optimal pattern of morphic resonance within and between themselves?"

11) "Is any level of the ACS aware of pattern perturbation between the nested hierarchy of morphic fields of the body and its constituent subsets, and the ancestral nested hierarchy of morphic fields of the body, and its constituent subsets?" "Are all levels of the ACS aware of this?"

a) "Would it be of benefit to treat at this time with the intent of making all levels of the ACS fully aware of this?"

12) "Is any level of the ACS fully aware of an optimal pattern of resonance between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the ancestral nested hierarchy of morphic fields of the body, and its constituent subsets?" "Are all levels of the ACS aware of this?"

a) "Would it be of benefit to treat with the intention of causing all levels of the ACS to be fully aware of this?"

13) "Would it be of benefit to treat with the intention of causing the ACS to synchronize the nested hierarchy of morphic fields of the body, and its constituent subsets, and the ancestral nested hierarchy of morphic fields of the body, and its constituent subsets to an optimal pattern of resonance?"

14) "Would it be of benefit to treat with the intent of causing the ACS to maintain vigilance for any future presentation of pattern perturbation between the nested hierarchy of morphic fields of the body, and its constituent subsets, and the ancestral nested hierarchy of morphic fields of the body, and its constituent subsets, and upon recognition to resynchronize these systems to an optimal pattern of morphic resonance?"

15) Regional Field Fault (RFF) is the concept that there can be anatomical regions (even to the level of a specific chemical or receptor), or functional regions , or specific structures of the body that are energetically sequestered and isolated from optimal integration within the NHMFB. With this understanding ask:

a) "(With respect to the stated complaint) Is any level of the ACS aware of the identity, existence, and location of a Regional Field Fault." "Are all levels?" Tx as necessary for awareness.

- b) "Is this RFF specific to a functional system, anatomical region, specific chemical or chemical system?" MR1 for specific ID.
- c) "Is any level of the ACS aware of an optimal pattern of morphic resonance that resolves the RFF and integrates the RFF to the NHMFB?" Tx is necessary for awareness.
- d) "Would it be of benefit to treat with the intent of causing the ACS to synchronize the NHMFB and specified RFF to an optimal pattern of morphic resonance that integrates the RFF within the NHMFB?" Tx, and recheck

25. Glossary

Afferent/ Efferent Nerve Transmission:

Generally, afferent nerve impulses are those that are incoming to the central nervous system. Efferent nerve impulses are generally meant to be outgoing from the central nervous system. The terms may be used in a relational sense, therefore, any particular signal is both efferent (outgoing) relative to its origin and afferent to its target.

Allergen/Antigen:

Synonymous terms for any substance that stimulates the immune system.

Algorithm:

<http://www.wikipedia.org/wiki/Algorithm>

Generally, an algorithm is a list of instructions for accomplishing some task, and the task can be anything that has a recognizable end-point (or result). Often, some of the specific steps in the procedure are to be repeated until the task is done. Normally, there are different algorithms for the same task, some better than others. A cooking recipe is one kind of algorithm. Some recipes for making potato salad, for example, have "peel the potato" before "boil the potato", while some have the "boil" step before the "peel" step; but, they all call for those steps to be repeated for however many potatoes there are, and they all end when the potato salad is ready to eat.

Algorithms are essential to the way computers process information, because a computer program is essentially an algorithm that tells the computer what specific steps to perform, in what specific order, to perform a specific task, such as

calculating the employees' paychecks or printing the students' report cards. In that context, an algorithm is a well-defined method or procedure for solving a problem, usually a problem in mathematics or otherwise relating to the manipulation of information. Some people restrict the definition of algorithm to procedures that eventually finish, while others also include procedures that run forever without stopping.

Algorithms are often implemented as computer programs but can also be implemented as electric circuits or even performed directly by humans.

Autonomic Control System (ACS):

This term refers to all other than conscious level control systems in the body including the autonomic nervous system (usually limited in definition to the sympathetic and parasympathetic nervous systems), and all energetic level control systems such as morphogenic fields.

Autonomic Nervous System (ANS):

By definition, the sympathetic and parasympathetic nervous systems.

Circulating Immune Complex:

The 3D proteinaceous chemical forms that arise when antigen and immunoglobulin combine.

Cognitive Valuation:

This term refers to the concept of an overarching awareness of a condition, or aspect of a condition. Key to this concept is the understanding that the autonomic control

system is a nested hierarchy of structures cooperating to perform the control functions necessary to operate the body efficiently. Just as in other areas of NMT we may find that awareness exists; but is not properly distributed within the ACS. Correction of faults in cognitive valuation occurs at two levels, the distribution of awareness of correct cognitive valuation to all levels of the ACS, and the correction of the specified fault in cognitive valuation.

If It Is Wise To Check Cognitive Valuation At The Beginning Of Each Treatment Session And For Any Pathway, Or When MRT Responses Are In Conflict With Clinical Observations, Or Expectations Based On Clinical Experience.

When the NMT process doesn't seem to be going right in any way check for cognitive valuation.

Crossover Autoimmune Response:

The immune system attack on self tissues based on ACS confusion and related to positive findings in elements of the Allergy Pathway such as "inappropriate tagging of afferent stimuli", and "awareness of distinction of self/allergen, or self/infectious agent.

Endotoxins and Exotoxins:

Bacterial Toxigenesis (from UW-Madison Bacteriology)

Toxigenesis, or the ability to produce toxins, is an underlying mechanism by which many bacterial pathogens produce disease. At a chemical level, there are two types of bacterial toxins, lipopolysaccharides, which are associated with the cell walls of Gram-negative bacteria, and proteins, which are released from bacterial cells and may act at tissue sites removed from the site of bacterial growth. The cell-associated

lipopolysaccharide (LPS) toxins are referred to as endotoxins and the extracellular diffusible toxins are referred to as exotoxins.

Endotoxins are cell-associated substances that are structural components of the outer membrane of Gram-negative bacteria. However, endotoxins may be released from growing bacterial cells or from cells that are lysed as a result of effective host defense (e.g. lysozyme) or the activities of certain antibiotics (e.g. penicillins and cephalosporins). Exotoxins are usually secreted by bacteria, but in some cases they are released by lysis of the bacterial cell. Hence, either type of bacterial toxin may ultimately act in close association with the cells that produce the toxin, or at tissue sites remote from the original point of bacterial invasion or growth. Some bacterial toxins may also act at the site of colonization and play a role in invasion.

Future Vigilance Statements:

All pathways may be completed with a statement to the effect that the autonomic control system be instructed to maintain a vigilance for the future presentation of what the pathway treated, (infectious agent, PSPs, toxins, exogenous analogs, etc.) and upon recognition of such future presentation to make the appropriate correction.

Immune Complexes (IC's):

The chemical result of Ig and antigen combination. Some may be tissue fixed, and others may be soluble and circulate in the blood and body fluids.

Infectious Agent Pathway Rationale:

NMT does not diagnose either the presence of, or specific type of any infectious/pathogenic organism. Any such diagnosis requires laboratory testing. It

is the position of NMT that it is sufficient that the autonomic control system at some level perceives that there is some sort of infectious agent resident in a tissue of the body in order to cause the ACS to inappropriately facilitate destructive immune system activity in that and perhaps other tissues.

Motor End Organ (MEO):

The combination of a nerve ending and a cell that does work such as a secretory cell, or muscle cell. The MEO is the point at which the motor instruction from the nervous system produces its effect in the tissues of the body.

Other-Than-Conscious:

That which is referred to as "other than conscious" (OTC) in NMT is defined as the entirety of all neurological and energetic intelligence of which the subject has no subjective awareness. It is all that exists on the other side of the mind from that of which we are aware, separated by a barrier of incomprehension from consciousness. The activity of the other than conscious mind seems to have quantum characteristics in the sense that thought images with a unitary and iconographic character exist and can be perceived from outside the self and can be projected outward from the self. It is the exchange of this OTC/OTC communication that is the basis of muscle response testing (MRT).

OTC/OTC Communication:

The communication that takes place between practitioner and subject during NMT treatment sessions, and consisting of the non-verbal aspect of the protocol. This is a zero point field level influence in which a holographic, iconographic representation of the concepts represented by the verbal language portion of the protocol. The degree of clarity and comprehension within the practitioner of the verbal language

statements of the protocol is directly related to the quality of the communication on an OTC/OTC level. The quality of this communication is also directly related to the facility, experience, and skill developed by the practitioner in framing and projecting such OTC/OTC communication.

Perturbation:

The action of perturbing; the fact, or condition of being perturbed; disturbance, disorder, commotion; mental agitation, or disquietude; trouble. Oxford English Dictionary, 1971

Pattern Perturbation:

In the practice of NeuroModulation Technique pattern perturbation is the phasic dis-harmony between any two, or more morphic fields. The influence of this dis-harmony produces a qualitative, and quantitative compromise in the expression of the field. All life is the manifestation of vibrant morphic resonance of a nested hierarchy of such fields and any such compromise is of import regarding the optimal health of a living thing.

Sensory End Organ (SEO)

The SEO is the combination of a sensory nerve ending with a specially modified somatic cell. The cell is modified and the nerve ending combined with that modified cell in such a way that the resulting SEO fires when the tissues is exposed to particular kinds of stimuli. So, some SEO's in the skin are specialized to register light touch, while others in the muscle are specialized to register stretch.

Tagging of Afferent Stimuli:

"Inappropriate tagging of afferent stimuli" is the incorrect assignment of meaning and significance to particular afferent signals. Mid brain nuclei moderate the receipt of afferent stimuli from the body. According to Guyton 99% of all stimuli are ignored. That means there is a process by which the ACS evaluates all stimuli and determines which stimuli are relevant to the body's needs. For this to occur, some interpretation of stimuli must occur. Not only are much of the afferent stimuli ignored; but also stimuli of great relevance to safety and survival are parsed out of the flow of stimuli, and routed for immediate response. Such stimuli include perceptions of exposure to harmful chemistry, and strong pain or stretch afferents.

A "*fault in the tagging of afferent stimuli*" is the inappropriate assignment of meaning to incoming sensory signals. This may range from an allergic response to an innocuous substance, or the perception of pain in circumstances that should not result in pain. The nuclei involved with this process appear to be primarily the amygdala (recently found to be the seat of fear) and basal ganglia; but in some cases the reticular activating system. The concept of tagging of afferent stimuli is this authors interpretation of current readings in neurology.

Zero-Point Field:

Known in physics as the "electromagnetic zero-point field of the quantum vacuum". Termed "zero-point field" for the fluctuations in energy noted at the temperature of absolute zero at which no energy was once believed to exist. The zero-point field is the universal field upon which all other phenomena of the universe are manifested. All that exists is represented as holographic interference patterns of various levels of energetic complexity, quality, and quantity. All that exists, or has existed is postulated to be in a state of perpetual connectivity within this fabric of the universe.

26. Web-based Support And Continuing

Education

www.neuromodulationtechnique.com

By now you recognize that NMT is not another cookie cutter technique that you will just add to your bag of clinical tools. For most practitioners NMT becomes the template for clinical investigation and treatment that they apply to all the patients and problems that present to their offices. It is probably clear to you that the most valuable aspect of NMT is the overarching principles of this work denoted by the motto Access – Assess – Modulate. It is a way of thinking, a way of analyzing, and a way of directly influencing the most basic aspects of body function. NMT is indeed a science, maybe someday a profession, unto itself.

We have made an excellent beginning in this work with your first seminar, the Comprehensive Level NMT Seminar. Advanced seminars, and symposia will be offered. I have structured our seminar program so that you will not have to repeat the same level of seminar in order to receive the latest updates, enhancements, and support for this level of training you have had. NMT will not be static. *Changes and developments occur monthly, if not weekly. You will be able to receive updates to NMT seminar notes, answers to questions you and others pose to me, observe and participate in clinical discussion with your peers in web-based message boards in our forum conferences area of the website.* You will also be able to have real-time instant messaging conversations with others online using the "PAGE" feature of the forums. The "CHAT" feature permits groups of people to simultaneously chat

You will have access to purchase newly revised and updated manuals as they are developed for the seminar level you have trained in without retaking the seminar.

Of course, some of you will just want the experience of enjoying the seminar again at some future date, and that is fine, too. It is just nice to know that you aren't compelled to do so to keep up to date with your clinical skills. DVD's of NMT treatment being performed on real patients, permitting you to watch the course of treatment from beginning to end will be available for purchase to help you hone your clinical skills. There will be significant price breaks on such instructional DVD's and other materials for subscribers to the NMT Online Support Program. This is a blatant attempt at giving you further incentive to participate in this service that will be essential to helping you achieve clinical excellence. *Everything that we can do to use web-based and other technologies to help you become the best possible NMT practitioner is being developed and will be offered to you.* We know you are a serious and committed professional, and we want you to know that we at NMT seminars are committed to you! Other techniques offer free websites that are of very limited value, are seldom corrected or updated, and the author of the technique is rarely available to respond to questions or coach in difficult cases. With the NMT Online Support Program practitioners typically have a detailed response from me within hours. That kind of support has value, and there is a negligible cost that makes it possible for me to provide that service to you.

We get out of life what we put in to it. This couldn't be truer in the world of NMT. *You are beginning a period of study and growth that will last the rest of your*

professional lifetime. Make the most of it by spending some time on a regular basis checking into the website, reading the posts of others, and watching for important clinical updates I will offer in the "Clinical Pearls from Dr. Feinberg" forums in the message board area.

Be generous with your colleagues, too. *Please take the time to post interesting clinical cases you have treated with NMT so that others can learn from you.* If we all share our experiences we multiply by a factor of hundreds the clinical experience we get in our individual offices.

Finally, understand that your success with NMT depends on the level of awareness of NMT in the world at large. People the world over are so desperately in need of safe, and effective health care without the staggering financial burden of the common allopathic medicine model. *Take a little time each week to send an e-mail, or call a colleague who may not know about NMT, and share the gift of NMT with them.* Direct them to the official NMT website so they can learn more. I will, from time to time, post attachments of informative materials that you can send to colleagues to get them on board a new paradigm of healing with NMT.

I find, after a quarter of a century in alternative medicine that the joy of discovery with applying NMT in my practice is among the most satisfying and fulfilling experiences in my life. I wish you the same joy and excitement of learning, growth, and discovery every day of your life as an NMT practitioner.

27. Reading/Reference List of Books for NMT Practitioners

Reading these books is not prerequisite to attending the NMT seminars. It is recommended that some of them are essential reading to help develop the understanding that will enable you to do this work well. Some are also recommended as important references to have available while working. These books are generally available from any medical, or chiropractic college bookstore. They are also available from Amazon.com. My personal favorites are Guyton's Textbook of Medical Physiology, or Ganong's Review of Medical Physiology. Callander's Illustrated Physiology is very good, and is graphical. It may be out of print; but used copies are available. All of Frank Netter's work is superlative and represents the best in medical illustration, where one picture is worth many pages of text.

Sheldrake's books provide some background in the area of morphic fields which suggest a plausible explanation for how MRT works. Lynn McTaggart's book is wonderful, and very well footnoted. Preparation for the seminar should focus on anatomy, neuroanatomy, physiology, and neurophysiology, and energetics.

Asterisks note publications I have found to be particularly valuable

Energetics, Morphic Fields, Zero-Point Field:

****A New Science of Life by Rupert Sheldrake 1981

****The Sense Of Being Stated At – And Other Aspects Of The Extended Mind;
Rupert Sheldrake; Crown; 2003

**** The Presence of the Past: Morphic Resonance & the Habits of Nature
by Rupert Sheldrake (Mandatory!)
Edition: Paperback | All Editions

****The Field: The Quest for the Secret Force of the Universe
by Lynne McTaggart (Mandatory!)

**** Power vs. Force: The Hidden Determinants of Human Behavior
by David R. Hawkins (Mandatory!)

**** Wholeness and the Implicate Order by David Bohm, Ph.D.

Messages From Water and Messages From Water Part 2 by Masaru Emoto, Ph.D.
To order Messages from Water, Vol. 1, Messages from Water, Vol. 2, and the video
of Dr. Emoto's May 10th Dallas presentation entitled, "Water Knows the Answers"
send \$30 per item + 8.25% sales tax (TX residents only) + \$3.95 shipping and
handling (or get all three for \$79 + \$7.90 s & h) to:

Shifting Frequencies
PO Box 702956
Dallas, TX 75370-2956
Alternatively, fax 972-403-1536, call 972-378-1211, or order

Pocket Companion to Textbook of Medical Physiology by Arthur C. Guyton, John E. Hall (Paperback) Avg. Customer Rating: Editions: Paperback | more...

**** Review of Medical Physiology -- by William F. Ganong; Paperback
Nervous System: Anatomy and Physiology (Netter Collection of Medical Illustrations, Volume 1, Part 1) by Frank H. Netter (Hardcover) Avg. Customer

**** Clinical Neuroanatomy
by Stephen G., MD Waxman, Stephen G. Waxman
Edition: Paperback

**** Illustrated Physiology (6th) by B. R. MacKenna, Robin Callander (Paperback - April 1997) Avg. Customer Rating: Editions: Hardcover | Paperback
This book may be out of print; but used books are available and it is very good, and graphical

Clinical Neuroanatomy Made Ridiculously Simple (MedMaster Series, 2000 Edition)
by Stephen Goldberg

Atlas of Human Anatomy by Frank H. Netter (Paperback) Avg. Customer Rating:
Editions: Hardcover | Paperback

Clinical Anatomy for Medical Students - by Richard S., MD Snell; Paperback

Textbook of Medical Physiology (Textbook of Medical Physiology, 10th Ed) by Arthur C., M.D. Guyton, John E. Hall (Textbook Binding) Editions: Hardcover | Textbook Binding

Human Physiology and Mechanisms of Disease by Arthur C. Guyton, et al (Hardcover - January 1997) Editions: Hardcover

Guyton Physiology Review by Hall, John Hall (Paperback - September 2003)
Not yet published

Microbiology:

Cell Wall Deficient Forms: Stealth Pathogens, Third Edition
by Linda H. Mattman; CRC Press (Very highly recommended)

Neurology:

Antonio Damasio, M.D., Ph.D. has written several excellent and very accessible dissertations on that nature of consciousness and brain function. These books are published by Harcourt Publishing Co. and are highly recommended reading to enhance the practitioner's perspective on how the brain/mind works.

1. Descartes Error
2. The Feeling of What Happens

Looking for Spinoza -Joy, Sorrow, and the Feeling Brain

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Part I: Mind, Memory, and Archetype Morphic Resonance and the Collective Unconscious

Rupert Sheldrake
Psychological Perspectives 1987

Rupert Sheldrake is a theoretical biologist whose book, *A New Science of Life: The Hypothesis of Formative Causation* (Tarcher, 1981) evoked a storm of controversy. Nature described it as "the best candidate for burning," while the New Scientist called it "an important scientific inquiry into the nature of biological and physical reality." Because his work has important implications for Jung's concepts of the archetype and the collective unconscious, we have invited Sheldrake to present his views in a series of four essays which will appear in successive issues of PSYCHOLOGICAL PERSPECTIVES. These essays will be updates of his presentation on "Morphic Resonance and the Collective Unconscious," which he gave in May of 1986 at the Human Relations Institute in Santa Barbara. Audio recordings were made by Alpha Omega Cassette Enterprises of Pasadena, California.

In this essay, I am going to discuss the concept of collective memory as a background for understanding Jung's concept of the collective unconscious. The collective unconscious only makes sense in the context of some notion of collective memory. This then takes us into a very wide-ranging examination of the nature and principle of memory-not just in human beings and not just in the animal kingdom; not even just in the realm of life-but in the universe as a whole. Such an encompassing perspective is part of a very profound paradigm shift that is taking place in science: the shift from the mechanistic to an evolutionary and wholistic world view.

The Cartesian mechanistic view is, in many ways, still the predominant paradigm today, especially in biology and medicine. Ninety percent of biologists would be proud to tell you that they are mechanistic biologists. Although physics has moved beyond the mechanistic view, much of our thinking about physical reality is still shaped by it-even in those of us who would like to believe that we have moved beyond this frame of thought. Therefore, I will briefly examine some of the fundamental assumptions of the mechanistic world view in order to show how it is still deeply embedded in the way that most of us think.

MECHANISMS ROOTS IN NEO-PLATONIC MYSTICISM

It is interesting that the roots of the 17th-century mechanistic world view can be found in ancient mystical religion. Indeed, the mechanistic view was a synthesis of two traditions of thought, both of which were based on the mystical insight that reality is timeless and changeless. One of these traditions stems from Pythagoras and Plato, who were both fascinated by the eternal truths of mathematics. In the

17th century, this evolved into a view that nature was governed by timeless ideas, proportions, principles, or laws that existed within the mind of God. This world view became dominant and, through philosophers and scientists such as Copernicus, Kepler, Descartes, Galileo and Newton, it was incorporated into the foundations of modern physics.

Basically, they expressed the idea that numbers, proportions, equations, and mathematical principles are more real than the physical world we experience. Even today, many mathematicians incline toward this kind of Pythagorean or Platonic mysticism. They think of the physical world as a reification of mathematical principles, as a reflection of eternal numerical mathematical laws. This view is alien to the thinking of most of us, who view the physical world as the "real" world and consider mathematical equations a man-made, and possibly inaccurate, description of that "real" world. Nevertheless, this mystical view has evolved into the currently predominant scientific viewpoint that nature is governed by eternal, changeless, immutable, omnipresent laws. The laws of nature are everywhere and always,

MATERIALISM'S ROOTS IN ATOMISM

The second view of changelessness which emerged in the 17th century stemmed from the atomistic tradition of materialism, which addressed an issue which, even then, was already deep-rooted in Greek thought: namely, the concept of a changeless reality. Parmenides, a pre-Socratic philosopher, had the idea that only being is; not-being is not. If something is, it can't change because, in order to change, it would have to combine being with not-being, which was impossible. Therefore, he concluded that reality is a homogenous, changeless sphere. Unfortunately for Parmenides, the world we experience is not homogenous, changeless, or spherical.

In order to preserve his theory, Parmenides claimed that the world we experience is a delusion. This wasn't a very satisfactory solution, and thinkers of the time tried to find a way to resolve this dilemma.

The atomists' solution was to claim that reality consists of a large number of homogeneous, changeless spheres (or particles): the atoms. Instead of one big changeless sphere, there are a great many small, changeless spheres moving in the void. The changing appearances of the world could then be explained in terms of the movements, permutations, and combinations of the atoms. This is the original insight of materialism: that reality consisted of eternal atomic matter and the movement of matter.

The combination of this materialistic tradition with the Platonic tradition finally gave rise to the mechanical philosophy which emerged in the 17th century and produced a cosmic dualism that has been with us ever since. On the one hand we have eternal atoms of inert matter; and on the other hand, we have changeless, non-material laws which are more like ideas than physical, material things. In this kind of dualism, both sides are changeless-a belief that does not readily suggest the idea of an evolutionary universe. In fact, physicists have been very adverse to accepting the idea of evolution precisely because it fits so poorly with the notion of eternal matter and changeless laws. In modern physics, matter is now seen as a form of energy; eternal energy has replaced eternal matter, but little else has changed.

THE EMERGENCE OF THE EVOLUTIONARY PARADIGM

Nevertheless, the evolutionary paradigm has been gaining ground steadily for the past two centuries. In the 18th century, social, artistic, and scientific developments

were generally viewed as a progressive and evolutionary process. The Industrial Revolution made this viewpoint an economic reality in parts of Europe and America. By the early 19th century there were a number of evolutionary philosophies and, by the 1840's, the evolutionary social theory of Marxism had been publicized. In this context of social and cultural evolutionary theory, Darwin proposed his biological theory of evolution which extended the evolutionary vision to the whole of life. Yet this vision was not extended to the entire universe: Darwin and the neo-Darwinians ironically tried to fit the evolution of life on earth into a static universe, or even worse, a universe which was actually thought to be "running down" thermodynamically, heading toward a "heat death."

Everything changed in 1966 when physics finally accepted an evolutionary cosmology in which the universe was no longer eternal. Instead, the universe originated in a Big Bang about 15 billion years ago and has evolved ever since. So we now have an evolutionary physics. But we have to remember that this evolutionary physics is only just over 20 years old, and the implications and consequences of the Big Bang discovery are not yet fully known.

Physics is only just beginning to adapt itself to this new view, which, as we have seen, challenges the most fundamental assumption of physics since the time of Pythagoras: the idea of eternal laws. As soon as we have an evolving universe, we are confronted with the question: what about the eternal laws of nature? Where were the laws of nature before the Big Bang? If the laws of nature existed before the Big Bang, then it's clear that they are nonphysical; in fact, they are metaphysical. This forces out into the open the metaphysical assumption that underlay the idea of eternal laws all along.

Revolution made this viewpoint an economic reality in parts of Europe and America. By the early 19th century there were a number of evolutionary philosophies and, by the 1840's, the evolutionary social theory of Marxism had been publicized. In this context of social and cultural evolutionary theory, Darwin proposed his biological theory of evolution which extended the evolutionary vision to the whole of life. Yet this vision was not extended to the entire universe: Darwin and the neo-Darwinians ironically tried to fit the evolution of life on earth into a static universe, or even worse, a universe which was actually thought to be "running down" thermodynamically, heading toward a "heat death."

LAWS OF NATURE, OR JUST HABITS?

There is an alternative, however. The alternative is that the universe is more like an organism than a machine. The Big Bang recalls the mythic stories of the hatching of the cosmic egg: it grows, and as it grows it undergoes an internal differentiation that is more like a gigantic cosmic embryo than the huge eternal machine of mechanistic theory. With this organic alternative, it might make sense to think of the laws of nature as more like habits; perhaps the laws of nature are habits of the universe, and perhaps the universe has an in-built memory.

About 100 years ago the American philosopher, C. S. Pierce, said that if we took evolution seriously, if we thought of the entire universe as evolving, then we would have to think of the laws of nature as somehow likened to habits. This idea was actually quite common, especially in America; it was espoused by William James and other American philosophers, and was quite widely discussed at the end of the last century. In Germany, Nietzsche went so far as to suggest that the laws of nature underwent natural selection: perhaps there were many laws of nature at the beginning, but only the successful laws survived; therefore, the universe we see has laws which have evolved through natural selection.

Biologists also moved toward interpreting phenomena in terms of habit. The most interesting such theorist was English writer Samuel Butler, whose most important books on this theme were *Life and Habit* (1878) and *Unconscious Memory* (1881). Butler contended that the whole of life involved inherent unconscious memory; habits, the instincts of animals, the way in which embryos develop, all reflected a basic principle of inherent memory within life. He even proposed that there must be an inherent memory in atoms, molecules, and crystals. Thus, there was this period of

time at the end of the last century when biology was viewed in evolutionary terms. It is only since the 1920's that mechanistic thinking has come to have a stranglehold upon biological thought.

HOW DOES FORM ARISE?

The hypothesis of formative causation, which is the basis of my own work, starts from the problem of biological form. Within biology, there has been a long-standing discussion of how to understand the way embryos and organisms develop. How do plants grow from seeds? How do embryos develop from fertilized eggs? This is a problem for biologists; it's not really a problem for embryos and trees, which just do it! However, biologists find it difficult to find a causal explanation for form. In physics, in some sense the cause equals the effect. The amount of energy, matter, and momentum before a given change equals the amount afterwards. The cause is contained in the effect and the effect in the cause. However, when we are considering the growth of an oak tree from an acorn, there seems to be no such equivalence of cause and effect in any obvious way.

In the 17th century, the main mechanistic theory of embryology was simply that the oak tree was contained within the acorn: inside each acorn there was a miniature oak tree which inflated as the oak tree grew. This theory was quite widely accepted, and it was the one most consistent with the mechanistic approach, as understood at that time. However, as critics rapidly pointed out, if the oak tree is inflated and that oak tree itself produces acorns, the inflatable oak tree must contain inflatable acorns which contain inflatable oak trees, ad infinitum.

If, on the other hand, more form came from less form (the technical name for which is epigenesis), then where does the more form come from?

How did structures appear that weren't there before? Neither Platonists nor Aristotelians had any problem with this question. The Platonists said that the form comes from the Platonic archetype; if there is an oak tree, then there is an archetypal form of an oak tree, and all actual oak trees are simply reflections of this archetype. Since this archetype is beyond space and time, there is no need to have it embedded in the physical form of the acorn. The Aristotelians said that every species has its own kind of soul, and the soul is the form of the body. The body is in the soul, not the soul in the body. The soul is the form of the body and is around the body and contains the goal of development (which is formally called entelechy). An oak tree soul contains the eventual oak tree.

IS DNA A GENETIC PROGRAM?

However, a mechanistic world view denies animism in all its forms; it denies the existence of the soul and of any non-material organizing principles. Therefore, mechanists have to have some kind of preformationism. At the end of the 19th century, German biologist August Weismann's theory of the germ-plasm revived the idea of preformationism; Weismann's theory placed "determinants," which supposedly gave rise to the organism, inside the embryo. This is the ancestor of the present idea of genetic programming, which constitutes another resurgence of preformationism in a modern guise.

As we will see, this model does not work very well. The genetic program is assumed to be identical with DNA, the genetic chemical. The genetic information is coded in

DNA and this code forms the genetic program. But such a leap requires projecting onto DNA properties that it does not actually possess. We know what, DNA does; it codes for proteins; it codes for the sequence of amino acids which form proteins. However, there is a big difference between coding for the structure of a protein-a chemical constituent of the organism-and programming the development of an entire organism. It is the difference between making bricks and building a house out of the bricks. You need the bricks to build the house. If you have defective bricks, the house will be defective. But the plan of the house is not contained in the bricks, or the wires, or the beams, or cement.

Analogously, DNA only codes for the materials from which the body is constructed: the enzymes, the structural proteins, and so forth. There is no evidence that it also codes for the plan, the form, the morphology of the body. To see this more clearly, think of your arms and legs. The form of the arms and legs is different; it's obvious that they have a different shape from each other. Yet the chemicals in the arms and legs are identical. The muscles are the same, the nerve cells are the same, the skin cells are the same, and the DNA is the same in all the cells of the arms and legs. In fact, the DNA is the same in all the cells of the body. DNA alone cannot explain the difference in form; something else is necessary to explain form.

In current mechanistic biology, this is usually assumed to depend on what are called "complex patterns of physio-chemical interaction not yet fully understood." Thus the current mechanistic theory is not an explanation but merely the promise of an explanation. It is what Sir Karl Popper has called a "promissory mechanism"; it involves issuing promissory notes against future explanations that do not yet exist. As such, it is not really an objective argument; it is merely a statement of faith.

WHAT ARE MORPHIC FIELDS?

The question of biological development, of morphogenesis, is actually quite open and is the subject of much debate within biology itself. An alternative to the mechanist/reductionist approach, which has been around since the 1920s, is the idea of morphogenetic (form-shaping) fields. In this model, growing organisms are shaped by fields which are both within and around them, fields which contain, as it were, the form of the organism. This is closer to the Aristotelian tradition than to any of the other traditional approaches. As an oak tree develops, the acorn is associated with an oak tree field, an invisible organizing structure which organizes the oak tree's development; it is like an oak tree mold, within which the developing organism grows.

One fact which led to the development of this theory is the remarkable ability organisms have to repair damage. If you cut an oak tree into little pieces, each little piece, properly treated, can grow into a new tree. So from a tiny fragment, you can get a whole. Machines do not do that; they do not have this power of remaining whole if you remove parts of them. Chop a computer up into small pieces and all you get is a broken computer. It does not regenerate into lots of little computers. But if you chop a flatworm into small pieces, each piece can grow into a new flatworm. Another analogy is a magnet. If you chop a magnet into small pieces, you do have lots of small magnets, each with a complete magnetic field. This is a holistic property that fields have that mechanical systems do not have unless they are associated with fields. Still another example is the hologram, any part of which contains the whole. A hologram is based on interference patterns within the electromagnetic field. Fields thus have a wholistic property which was very attractive to the biologists who developed this concept of morphogenetic fields.

Each species has its own fields, and within each organism there are fields within fields. Within each of us is the field of the whole body; fields for arms and legs and fields for kidneys and livers; within are fields for the different tissues inside these organs, and then fields for the cells, and fields for the sub-cellular structures, and fields for the molecules, and so on. There is a whole series of fields within fields. The essence of the hypothesis I am proposing is that these fields, which are already accepted quite widely within biology, have a kind of in-built memory derived from previous forms of a similar kind. The liver field is shaped by the forms of previous livers and the oak tree field by the forms and organization of previous oak trees.

Through the fields, by a process called morphic resonance, the influence of like upon like, there is a connection among similar fields. That means that the field's structure has a cumulative memory, based on what has happened to the species in the past. This idea applies not only to living organisms but also to protein molecules, crystals, even to atoms. In the realm of crystals, for example, the theory would say that the form a crystal takes depends on its characteristic morphic field. Morphic field is a broader term which includes the fields of both form and behavior; hereafter, I shall use the word morphic field rather than morphogenetic.

MIGRANT BEARDED CHEMISTS

If you make a new compound and crystallize it, there won't be a morphic field for it the first time. Therefore, it may be very difficult to crystallize; you have to wait for a morphic field to emerge. The second time, however, even if you do this somewhere else in the world, there will be an influence from the first crystallization, and it should crystallize a bit more easily. The third time there will be an influence from the first and second, and so on. There will be a cumulative influence from previous

crystals, so it should get easier and easier to crystallize the more often you crystallize it. And, in fact, this is exactly what does happen. Synthetic chemists find that new compounds are generally very difficult to crystallize. As time goes on, they generally get easier to crystallize all over the world. The conventional explanation is that this occurs because fragments of previous crystals are carried from laboratory to laboratory on beards of migrant chemists. When there have not been any migrant chemists, it is assumed that the fragments wafted through the atmosphere as microscopic dust particles.

Perhaps migrant chemists do carry fragments on their beards and perhaps dust particles do get blown around in the atmosphere. Nevertheless, if one measures the rate of crystallization under rigorously controlled conditions in sealed vessels in different parts of the world, one should still observe an accelerated rate of crystallization. This experiment has not yet been done. But a related experiment involving chemical reaction rates of new synthetic processes is at present being considered by a major chemical company in Britain because, if these things happen, they have quite important implications for the chemical industry.

A NEW SCIENCE OF LIFE

There are quite a number of experiments that can be done in the realm of biological form and the development of form. Correspondingly, the same principles apply to behavior, forms of behavior and patterns of behavior. Consider the hypothesis that if you train rats to learn a new trick in Santa Barbara, then rats all over the world should be able to learn to do the same trick more quickly, just because the rats in Santa Barbara have learned it. This new pattern of learning will be, as it were, in the rat collective memory-in the morphic fields of rats, to which other rats can tune in,

just because they are rats and just because they are in similar circumstances, by morphic resonance. This may seem a bit improbable, but either this sort of thing happens or it doesn't.

Among the vast number of papers in the archives of experiments on rat psychology, there are a number of examples of experiments in which people have actually monitored rates of learning over time and discovered mysterious increases. In my book, *A New Science of Life*, I describe one such series of experiments which extended over a 50-year period. Begun at Harvard and then carried on in Scotland and Australia, the experiment demonstrated that rats increased their rate of learning more than tenfold. This was a huge effect—not some marginal statistically significant result. This improved rate of learning in identical learning situations occurred in these three separate locations and in all rats of the breed, not just in rats descended from trained parents.

There are other examples of the spontaneous spread of new habits in animals and birds which provide at least circumstantial evidence for the theory of morphic resonance. The best documented of these is the behavior of bluetits, a rather small bird with a blue head, that is common throughout Britain. Fresh milk is still delivered to the door each morning in Britain. Until about the 1950s, the caps on the milk bottles were made of cardboard. In 1921 in Southampton, a strange phenomenon was observed. When people came out in the morning to get their milk bottles, they found little shreds of cardboard all around the bottom of the bottle, and the cream from the top of the bottle had disappeared. Close observation revealed that this was being done by bluetits, who sat on top of the bottle, pulled off the cardboard with their beaks, and then drank the cream. Several tragic cases were found in which bluetits were discovered drowned head first in the milk!

This incident caused considerable interest; then the event turned up somewhere else in Britain, about 50 miles away, and then somewhere about 100 miles away. Whenever the bluetit phenomenon turned up, it started spreading locally, presumably by imitation. However, bluetits are very home-loving creatures, and they don't normally travel more than four or five miles. Therefore, the dissemination of the behavior over large distances could only be accounted for in terms of an independent discovery of the habit. The bluetit habit was mapped throughout Britain until 1947, by which time it had become more or less universal. The people who did the study came to the conclusion that it must have been "invented" independently at least 50 times. Moreover, the rate of spread of the habit accelerated as time went on. In other parts of Europe where milk bottles are delivered to doorsteps, such as Scandinavia and Holland, the habit also cropped up during the 1930s and spread in a similar manner. Here is an example of a pattern of behavior which was spread in a way which seemed to speed up with time, and which might provide an example of morphic resonance.

But there is still stronger evidence for morphic resonance. Because of the German occupation of Holland, milk delivery ceased during 1939-40. Milk deliveries did not resume until 1948. Since bluetits usually live only two to three years, there probably were no bluetits alive in 1948 who had been alive when milk was last delivered. Yet when milk deliveries resumed in 1948, the opening of milk bottles by bluetits sprang up rapidly in quite separate places in Holland and spread extremely rapidly until, within a year or two, it was once again universal. The behavior spread much more rapidly and cropped up independently much more frequently the second time round than the first time. This example demonstrates the evolutionary spread of a

new habit which is probably not genetic but rather depends on a kind of collective memory due to morphic resonance.

I am suggesting that heredity depends not only on DNA, which enables organisms to build the right chemical building blocks-the proteins-but also on morphic resonance. Heredity thus has two aspects: one a genetic heredity, which accounts for the inheritance of proteins through DNA's control of protein synthesis; the second a form of heredity based on morphic fields and morphic resonance, which is nongenetic and which is inherited directly from past members of the species. This latter form of heredity deals with the organization of form and behavior.

THE ALLEGORY OF THE TELEVISION SET

The differences and connections between these two forms of heredity become easier to understand if we consider an analogy to television. Think of the pictures on the screen as the form that we are interested in. If you didn't know how the form arose, the most obvious explanation would be that there were little people inside the set whose shadows you were seeing on the screen. Children sometimes think in this manner. If you take the back off the set, however, and look inside, you find that there are no little people. Then you might get more subtle and speculate that the little people are microscopic and are actually inside the wires of the TV set. But if you look at the wires through a microscope, you can't find any little people there either.

You might get still more subtle and propose that the little people on the screen actually arise through "complex interactions among the parts of the set which are not yet fully understood." You might think this theory was proved if you chopped

out a few transistors from the set. The people would disappear. If you put the transistors back, they would reappear. This might provide convincing evidence that they arose from within the set entirely on the basis of internal interaction.

Suppose that someone suggested that the pictures of little people come from outside the set, and the set picks up the pictures as a result of invisible vibrations to which the set is attuned. This would probably sound like a very occult and mystical explanation. You might deny that anything is coming into the set. You could even "prove it" by weighing the set switched off and switched on; it would weigh the same. Therefore, you could conclude that nothing is coming into the set.

I think that is the position of modern biology, trying to explain everything in terms of what happens inside. The more explanations for form are looked for inside, the more elusive the explanations prove to be, and the more they are ascribed to ever more subtle and complex interactions, which always elude investigation. As I am suggesting, the forms and patterns of behavior are actually being tuned into by invisible connections arising outside the organism. The development of form is a result of both the internal organization of the organism and the interaction of the morphic fields to which it is tuned.

Genetic mutations can affect this development. Again think of the TV set. If we mutate a transistor or a condenser inside the set, you may get distorted pictures or sound. But this does not prove that the pictures and sound are programmed by these components. Nor does it prove that form and behavior are programmed by genes, if we find there are alterations in form and behavior as a result of genetic mutation.

There is another kind of mutation which is particularly interesting. Imagine a mutation in the tuning circuit of your set, such that it alters the resonant frequency of the tuning circuit. Tuning your TV depends on a resonant phenomenon; the tuner resonates at the same frequency as the frequency of the signal transmitted by the different stations. Thus tuning dials are measured in hertz, which is a measure of frequency. Imagine a mutation in the tuning system such that you tune to one channel and a different channel actually appears. You might trace this back to a single condenser or a single resistor which had undergone a mutation. But it would not be valid to conclude that the new programs you are seeing, the different people, the different films and advertisements, are programmed inside the component that has changed. Nor does it prove that form and behavior are programmed in the DNA when genetic mutations lead to changes in form and behavior. The usual assumption is that if you can show something alters as a result of a mutation, then that must be programmed by, or controlled by, or determined by, the gene. I hope this TV analogy makes it clear that that is not the only conclusion. It could be that it is simply affecting the tuning system.

A NEW THEORY OF EVOLUTION

A great deal of work is being done in contemporary biological research on such "tuning" mutations (formally called homeotic mutations). The animal most used in the investigations is *Drosophila*, the fruitfly. A whole range of these mutations have been found which produce various monstrosities. One kind, called *antennapedia*, leads to the antennae being transformed into legs. The unfortunate flies, which contain just one altered gene, produce legs instead of antennae growing out of their heads. There is another mutation which leads to the second of the three pairs of legs in the *Drosophila* being transformed into antennae. Normally flies have one pair of

wings and, on the segment behind the wings, are small balancing organs called halteres. Still another mutation leads to the transformation of the segment normally bearing the halteres into a duplicate of the first segment, so that these flies have four wings instead of two. These are called *bithorax* mutants.

All of these mutations depend on single genes. I propose that somehow these single gene mutations are changing the tuning of a part of the embryonic tissue, such that it tunes into a different morphic field than it normally does, and so a different set of structures arise, just like tuning into a different channel on TV.

One can see from these analogies how both genetics and morphic resonance are involved in heredity. Of course, a new theory of heredity leads to a new theory of evolution. Present-day evolutionary theory is based on the assumption that virtually all heredity is genetic. Sociobiology and neo-Darwinism in all their various forms are based on gene selection, gene frequencies, and so forth. The theory of morphic resonance leads to a much broader view which allows one of the great heresies of biology once more to be taken seriously: namely, the idea of the inheritance of acquired characteristics. Behaviors which organisms learn, or forms which they develop, can be inherited by others even if they are not descended from the original organisms-by morphic resonance.

A NEW CONCEPT OF MEMORY

When we consider memory, this hypothesis leads to a very different approach from the traditional one. The key concept of morphic resonance is that similar things influence similar things across both space and time. The amount of influence depends on the degree of similarity. Most organisms are more similar to themselves

in the past than they are to any other organism. I am more like me five minutes ago than I am like any of you; all of us are more like ourselves in the past than like anyone else. The same is true of any organism. This self-resonance with past states of the same organism in the realm of form helps to stabilize the morphogenetic fields, to stabilize the form of the organism, even though the chemical constituents in the cells are turning over and changing. Habitual patterns of behavior are also tuned into by the self-resonance process. If I start riding a bicycle, for example, the pattern of activity of my nervous system and my muscles, in response to balancing on the bicycle, immediately tunes me in by similarity to all the previous occasions on which I have ridden a bicycle. The experience of bicycle riding is given by cumulative morphic resonance to all those past occasions. It is not a verbal or intellectual memory; it is a body memory of riding a bicycle.

This would also apply to my memory of actual events: what I did yesterday in Los Angeles or last year in England. When, I think of these particular events, I am tuning into the occasions on which these events happened. There is a direct causal connection through a tuning process. If this hypothesis is correct, it is not necessary to assume that memories are stored inside the brain.

THE MYSTERY OF MIND

All of us have been brought up on the idea that memories are stored in the brain; we use the word brain interchangeably with mind or memory. I am suggesting that the brain is more like a tuning system than a memory storage device. One of the main arguments for the localization of memory in the brain is the fact that certain kinds of brain damage can lead to loss of memory. If the brain is damaged in a car accident

and someone loses memory, then the obvious assumption is that memory tissue must have been destroyed. But this is not necessarily so.

Consider the TV analogy again. If I damaged your TV set so that you were unable to receive certain channels, or if I made the TV set aphasic by destroying the part of it concerned with the production of sound so that you could still get the pictures but could not get the sound, this would not prove that the sound or the pictures were stored inside the TV set. It would merely show that I had affected the tuning system so you could not pick up the correct signal any longer. No more does memory loss due to brain damage prove that memory is stored inside the brain. In fact, most memory loss is temporary: amnesia following concussion, for example, is often temporary. This recovery of memory is very difficult to explain in terms of conventional theories: if the memories have been destroyed because the memory tissue has been destroyed, they ought not to come back again; yet they often do.

Another argument for the localization of memory inside the brain is suggested by the experiments on electrical stimulation of the brain by Wilder Penfield and others. Penfield stimulated the temporal lobes of the brains of epileptic patients and found that some of these stimuli could elicit vivid responses, which the patients interpreted as memories of things they had done in the past. Penfield assumed that he was actually stimulating memories which were stored in the cortex. Again returning to the TV analogy, if I stimulated the tuning circuit of your TV set and it jumped onto another channel, this wouldn't prove the information was stored inside the tuning circuit. It is interesting that, in his last book, *The Mystery of the Mind*, Penfield himself abandoned the idea that the experiments proved that memory was inside the brain. He came to the conclusion that memory was not stored inside the cortex at all.

There have been many attempts to locate memory traces within the brain, the best known of which were by Karl Lashley, the great American neurophysiologist. He trained rats to learn tricks, then chopped bits of their brains out to determine whether the rats could still do the tricks. To his amazement, he found that he could remove over fifty percent of the brain-any 50%-and there would be virtually no effect on the retention of this learning. When he removed all the brain, the rats could no longer perform the tricks, so he concluded that the brain was necessary in some way to the performance of the task-which is hardly a very surprising conclusion. What was surprising was how much of the brain he could remove without affecting the memory.

Similar results have been found by other investigators, even with invertebrates such as the octopus. This led one experimenter to speculate that memory was both everywhere and nowhere in particular. Lashley himself concluded that memories are stored in a distributed manner throughout the brain, since he could not find the memory traces which classical theory required. His student, Karl Pribram, extended this idea with the holographic theory of memory storage: memory is like a holographic image, stored as an interference pattern throughout the brain.

What Lashley and Pribram (at least in some of his writing) do not seem to have considered is the possibility that memories may not be stored inside the brain at all. The idea that they are not stored inside the brain is more consistent with the available data than either the conventional theories or the holographic theory. Many difficulties have arisen in trying to localize memory storage in the brain, in part because the brain is much more dynamic than previously thought. If the brain is to serve as a memory storehouse, then the storage system would have to remain stable;

yet it is now known that nerve cells turn over much more rapidly than was previously thought. All the chemicals in synapses and nerve structures and molecules are turning over and changing all the time. With a very dynamic brain, it is difficult to see how memories are stored.

There is also a logical problem about conventional theories of memory storage, which various philosophers have pointed out. All conventional theories assume that memories are somehow coded and located in a memory store in the brain. When they are needed they are recovered by a retrieval system. This is called the coding, storage, and retrieval model. However, for a retrieval system to retrieve anything, it has to know what it wants to retrieve; a memory retrieval system has to know what memory it is looking for. It thus must be able to recognize the memory that it is trying to retrieve. In order to recognize it, the retrieval system itself must have some kind of memory. Therefore, the retrieval system must have a sub-retrieval system to retrieve its memories from its store. This leads to an infinite regress. Several philosophers argue that this is a fatal, logical flaw in any conventional theory of memory storage. However, on the whole, memory theoreticians are not very interested in what philosophers say, so they do not bother to reply to this argument. But it does seem to me quite a powerful one.

In considering the morphic resonance theory of memory, we might ask: if we tune into our own memories, then why don't we tune into other people's as well? I think we do, and the whole basis of the approach I am suggesting is that there is a collective memory to which we are all tuned which forms a background against which our own experience develops and against which our own individual memories develop. This concept is very similar to the notion of the collective unconscious.

Jung thought of the collective unconscious as a collective memory, the collective memory of humanity. He thought that people would be more tuned into members of their own family and race and social and cultural group, but that nevertheless there would be a background resonance from all humanity: a pooled or averaged experience of basic things that all people experience (e.g., maternal behavior and various social patterns and structures of experience and thought). It would not be a memory from particular persons in the past so much as an average of the basic forms of memory structures; these are the archetypes. Jung's notion of the collective unconscious makes extremely good sense in the context of the general approach that I am putting forward. Morphic resonance theory would lead to a radical reaffirmation of Jung's concept of the collective unconscious.

It needs reaffirmation because the current mechanistic context of conventional biology, medicine, and psychology denies that there can be any such thing as the collective unconscious; the concept of a collective memory of a race or species has been excluded as even a theoretical possibility. You cannot have any inheritance of acquired characteristics according to conventional theory; you can only have an inheritance of genetic mutations. Under the premises of conventional biology, there would be no way that the experiences and myths of, for example, African tribes, would have any influence on the dreams of someone in Switzerland of non-African descent, which is the sort of thing Jung thought did happen. That is quite impossible from the conventional point of view, which is why most biologists and others within mainstream science do not take the idea of the collective unconscious seriously. It is considered a flaky, fringe idea that may have some poetic value as a kind of metaphor, but has no relevance to proper science because it is a completely untenable concept from the point of view of normal biology.

The approach I am putting forward is very similar to Jung's idea of the collective unconscious. The main difference is that Jung's idea was applied primarily to human experience and human collective memory. What I am suggesting is that a very similar principle operates throughout the entire universe, not just in human beings. If the kind of radical paradigm shift I am talking about goes on within biology-if the hypothesis of morphic resonance is even approximately correct-then Jung's idea of the collective unconscious would become a mainstream idea: Morphogenetic fields and the concept of the collective unconscious would completely change the context of modern psychology.

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Part 2 : Society, Spirit & Ritual: Morphic Resonance and the Collective Unconscious

Rupert Sheldrake

Psychological Perspectives 1987

Rupert Sheldrake is a theoretical biologist whose book, *A New Science of Life: The Hypothesis of Formative Causation*, continues to evoke a storm of controversy. Following is the second in a series of articles wherein Sheldrake presents his ideas for amplifying Jung's concept of the collective unconscious and archetypal psychology. He concluded his first article with these words:

The approach I am putting forward is very similar to Jung's idea of the collective unconscious. The main difference is that Jung's idea was applied primarily to human experience and human collective memory. What I am suggesting is that a very similar principle operates throughout the entire universe, not just in human beings. If the kind of radical paradigm shift I am talking about goes on within biology, if the hypothesis of morphic resonance is even approximately correct, then Jung's idea of the collective unconscious would become a mainstream idea: Morphogenetic fields and the concept of the collective unconscious would completely change the context of modern psychology.

SOCIETY AS SUPERORGANISM

In Part II of this essay, I want to explore some ideas about the social and cultural aspects of morphic fields and morphic resonance. A familiar comparison might be that of a hive of bees or a nest of termites: each is like a giant organism, and the

insects within it are like cells in a superorganism. Although comprised of hundreds and hundreds of individual insect cells, the hive or nest functions and responds as a unified whole.

My hypothesis is that societies have social and cultural morphic fields which embrace and organize all that resides within them. Although comprised of thousands and thousands of individual human beings, the society can function and respond as a unified whole via the characteristics of its morphic field. To visualize this, it is helpful to remember that fields by their very nature are both within and around the things to which they refer. A magnetic field is both within a magnet and around it; a gravitational field is both within the earth and around it. Field theories thus take us beyond the traditional rigid definition of "inside" and "outside." A superorganism concept of animal societies dominated behavioral biology until about the early 1960s. Then, as Edward O. Wilson, the founder of sociobiology, notes in his book, *The Insect Societies* (1971), there was a general shift in paradigm in favor of mechanistic reductionism, which explained animal societies purely in terms of interactions among genetically programmed individuals. The superorganism concept has not been forgotten, however, and forces itself again and again upon people who think about animal societies.

There is an inherent problem in the concept: if one says that the animal society is a kind of organism, then what kind of organism is it? What is it that can possibly organize all the individual animals within it? I am suggesting that there is a morphic field which embraces all the animals, a field which literally extends around all the animals within it. This field coordinates their movements just as the morphic field of the human body coordinates the activities and movements of the cells and tissues and organs. This concept better describes the characteristic phenomena of animal societies than the idea that they are all individually interacting yet separate things.

MARAI'S AND THE WHITE ANTS

For example, it explains how termites building columns which are adjacent yet separate know how to build arches so that the two sides meet at exactly the right place in the middle. Termites are blind, and the inside of the nest is dark, so they can't do it by vision. Edward O. Wilson considers it unlikely that they do it by hearing or acoustic methods, because of the constant background of sound caused by the movement of termites within the mound. The only hypothesis that Wilson, who represents the most hard-nosed reductionist school of thought, considers likely is that they do it by smell. And even he agrees that that seems farfetched.

If, in fact, the column construction is going on within a social morphic field which embraces the whole nest and which contains a "mold" of the future arch, then the termites' movements are coordinated by this field and it's much easier to understand how the columns can meet. If that is the case, it should be possible to investigate it experimentally.

In the 1920s, South African biologist Eugene Marais wrote *The Soul of The White Ant*, in which he described experiments investigating the effect of damaging South African termite mounds. Marais took a large steel plate several feet across and several feet deep and hammered it into the center of a termite mound. The termites repaired the mound on both sides of the steel plate, building columns and arches.

Their movements were coordinated even though they approached the wall from different sides. Amazingly, the termites on opposite sides of the steel plate built arches that met at the steel plate at exactly the right position to join if the plate had not blocked their way. This seemed to demonstrate that there was some kind of coordinating influence which was not blocked by a steel plate. Obviously, this would be impossible to do by smell, as Wilson suggests, since even termites can't smell subtle odors through a steel plate.

Unfortunately, no one has ever repeated these experiments, even though it would not be difficult to repeat them in a country where termites are common. If Marais'

result was replicated, it would strongly suggest that there was a field coordinating the actions of the individuals.

WAYNE POTTS AND THE MANEUVER WAVES OF BIRDS

As another familiar example of the superorganism concept, consider schools of fish: when predators swim into a school, the fish dart quickly to the side in a coordinated way in order to clear a path through the middle. They move very fast in response to quite unexpected stimuli, yet they do not bump into each other. The same is true of flocks of birds. A whole flock can bank as one without the birds bumping into each other.

Recently, studies investigating the banking of large flocks of dunlins by American researcher Wayne Potts have been conducted. He filmed their maneuvers at a very rapid rate of exposure, so that he could later slow the process down and examine it frame by frame. When he did so, he found that the rate of propagation of what he calls the "maneuver wave" is extremely fast: about 20 milliseconds from bird to bird. This is much faster than the birds' minimum reaction time to stimuli. He measured their startle reaction time using dunlins in the laboratory in dark or dim light. He set off photographic flashbulbs and measured how long it took the birds to react. He found that it took the individual birds about 80-100 milliseconds; that is, they reacted as individuals four to five times more slowly than the rate at which the maneuver wave moved from bird to bird. The banking maneuver could begin anywhere within the flock; at the front or back or at the side. It was usually initiated by a single bird or a small group of birds, and then propagated outwards much faster than could be explained by any simple system of visual cuing and response to stimuli.

THE COLLECTIVE BEHAVIOR OF HUMAN GROUPS

If one thinks of the flock as being coordinated by a morphic field and the "maneuver wave" as a wave in the morphic field, then this phenomenon is much easier to

understand than it is when explained in terms of ordinary sensory physiology. The above examples illustrate a few of the areas in which actual empirical studies are possible, areas which suggest the existence of group minds or group fields in the coordination of collective animal behavior. It has often been suggested that a similar phenomenon may be at work in human groups, especially in the behavior of crowds. A number of studies has been conducted by social psychologists on what they call "collective behavior," which includes the behavior of crowds, football hooligans, rioting mobs, and lynching mobs, as well as rapidly spreading social phenomena such as fashions, fads, rumors, crazes, and jokes. All such phenomenon would fit readily into the concept of group morphic fields.

In interviews, athletes on successful teams commonly compare their teams to a composite organism where everybody fits in and knows where their teammates are going to be. The team behaves more like a single organism than like a composite of separate individuals. Through practice together, teams build up this response to each other; words such as empathy or sixth sense are often used to describe the feeling they share.

If we think of societies and social groups as being coordinated by morphic fields, then we realize that the groups themselves come together and dissolve as teams do; but their fields are more enduring. We are in these fields virtually all the time: family fields, or national fields, or local fields, the fields of various groups to which we belong. We are contained within these larger collective patterns of organization much of the time but because they are always present, we cease to be aware of them. We take them for granted, just as we take the air we breathe for granted, because the air is also always present. However, if we are held under water for a while, we no longer take the air for granted; we quickly become conscious of our need for it! Similarly, people placed in solitary confinement quickly become aware of the importance of social interaction.

Many anthropologists have commented on an almost indefinable "something" which holds the members of the society together. French sociologist Emile Durkheim spoke of this as the "conscience collective" (in French, the word conscience means both conscience and consciousness). He believed that one of the major functions of the "conscience collective" was to maintain the cohesion of the social group. It behaved similarly to a group field, and many of the activities of the group consciousness were concerned with maintaining and stabilizing the continued existence of the group field itself.

MCDOUGALL'S GROUP MIND AND THE SHADOW

In the 1930s William McDougall, who wrote *The Group Mind* (1920/1972) and several other books on social psychology, theorized that a group mind existed which included all members of a society and which had its own thoughts, its own traditions, and its own memories. If we think of such a group mind as an aspect of the morphic field of the society, it would indeed have its own memory since all morphic fields have in-built memory through morphic resonance.

The problem with ideas like this one is that it is not possible yet to define what the group mind is or how it could be measured. Given the positivistic mood of sociology which prevailed then (and now), McDougall's concept of the group mind was not developed further. Traumatic social conditions then dampened any remaining receptivity to notions involving group forces. By the 1930s, the shadow side of collective consciousness had taken tangible form in Nazi Germany. Because this shadow side was all too real, most people were frightened of any concept suggesting group minds or group consciousness. Certainly we have all seen the shadow side of group consciousness only too clearly in the last few decades. What we need to realize, however, is that there is much to be learned from thinking about the more positive side of group fields or group consciousness.

In more recent sociological and anthropological theory, a holistic approach to society has become quite common. In fact, compared with the biological and physical sciences which have been based on reductionist principles, a great deal of sociological and anthropological theory has taken a consistently holistic perspective. It was within this broader intellectual environment, characterized by Durkheim's conscience collective and McDougall's group mind, that Jung formulated his concept of the collective unconscious.

IS SOCIETY AN ORGANISM?

The idea that human society is an organism is extremely widespread; it is perhaps one of the most common metaphors extending throughout the history of Western thought. It exists in our language in phrases such as the body politic, head of state, arm of the law. These are organic metaphors which imply the unified, organic nature of society. The same notion is also common in religious metaphors, and is expressed in such descriptions of the Christian church as the mystical body of Christ. More specifically, Christ compared himself to the vine of which the people were the branches, again connoting an organic unity. Even in 17th century political thought, which was far more atomistic in tone, philosopher Thomas Hobbes compared society to a Leviathan, a great monster, using still another organic metaphor.

Although many of us still think of society as a form of collective, living organism, the earth is now considered to be dead. This wasn't always so; in Latin, *mater* means mother and *materia* means matter. Thus, in the Indo-European languages, matter comes from the same root as mother. Unfortunately, since the 17th century, Mother Nature in Western consciousness has been turned into dead matter; the mother has become unconscious, only preserved as a dim memory in the word matter. Instead, it is the economy that has become alive. We speak of a growing economy which can be sick or healthy, and which goes through cycles. Economies have all the attributes

of giant living organisms, with an autonomy which even politicians, businessmen and bankers cannot control. The economy has become a self-regulating, self-organizing system, very much alive in a supposedly dead world. Thus the economy has come to life at the expense of the earth, and that is one of the problems with which many people are currently grappling.

The concept of morphic fields containing in-built memory helps to explain many features of society: for example, there are traditions, customs, and manners which enable societies to retain their organizing principles - their autonomy, pattern, structure, and organization; even though there is a continuous turnover of individuals through the cycles of birth and death. This is similar to the way in which the morphogenetic field of the human being coordinates the entire body even though the cells and tissues within the body are continuously changing.

RITEAUS: SPIRITUAL AND SECULAR

There are certain contexts in which social memory not only becomes conscious but is actually invoked in all societies; this is through ritual. Rituals are found in all societies all over the world, both in cultural and religious contexts. For example, in our own society the Jewish feast of Passover recalls the dreadful visitation of death throughout Egypt when all the first-born were killed, except the first born of the Jews who were protected by the ritual blood of sacrificial lambs smeared on the doorways of Jewish houses. In the Christian Mass, the ritual of Holy Communion, in which Christians drink the blood and eat the body of Jesus, refers back to the primal Last Supper when the Passover feast was transformed and Jesus himself became the sacrificial victim.

In every society there are also hundreds of social and cultural rituals. In America, there is the national custom of the Thanksgiving dinner which commemorates the first Thanksgiving dinner offered by Pilgrims upon their safe settlement in New England. We also have many minor rituals of everyday life, such as the rituals of

greeting and parting. Saying good-bye, for example, originally meant "God be with you." When we say good-bye, we give a ritualized blessing which retains some of the power of the original ritual, even though most people are no longer conscious of its original meaning. Similar ritual acts on large and small scales permeate even our modern "enlightened" societies.

What do people think they're doing in rituals? In major rituals, the ritual is usually associated with a story which refers back to a frequently forgotten primal event. For example, Guy Fawkes night is a secular ritual in England: every November 5th, bonfires are lit all over England, fireworks are set off, and effigies are burned over the bonfires. In this case, the ostensible story concerns a man named Guy Fawkes, one of the Roman Catholic conspirators in the so-called "Gunpowder Plot" who tried to blow up the House of Parliament in the 17th century.

However, lying behind that supposed explanation is a much older ritual: the Celtic festival of the dead. On November 1st, the ancient Celtic pre-Christian festival of the dead was celebrated whereby the old year was burned in effigy, as effigies are burned on Guy Fawkes day. During this period, it was believed that there was a "crack in time" when the living and the dead, the past, the present, and the future all came together. The eve of the festival of the dead was Halloween, when the spirits and ghosts came out and the dead walked again. Similarly, in the Christian calendar, November 1st is "All Saints Day" and November 2nd is "All Souls Day," when the souls of the departed are commemorated and requiem masses are said in churches even today. So, behind our present day celebrations lay a much older ritual background: a pattern behind a pattern. Many of these ancient rituals are alive and well in the modern world.

RITUALS AS MORPHIC RESONANCE WITH ANCESTORS

In general, rituals are highly conservative in nature and must be performed in the right way, which is the same way they have been performed in their past. If rituals

involve language, the most important of them use sacred languages. For example, Brahmanic rituals in India use Sanskrit, a language which is no longer spoken except by Brahmins, and the Sanskrit phrases must be pronounced the correct way in order for the rituals to be effective. We find a similar practice in a Christian context. The Coptic church in Egypt dates back to ancient times when Coptic was the spoken language; so in modern Cairo, you can attend a Coptic service and the language you hear is the otherwise dead language of ancient Egypt. The survival of ancient Egyptian in the Coptic liturgy was one of the important clues that enabled the unraveling of the language of ancient Egypt with the help of the Rosetta Stone.

Similarly, the Russian Orthodox church uses Old Slavic, and, until recently, the Roman Catholic church used Latin. There are hundreds of such examples. Ritual acts must be performed with the correct movements, gestures, words, and music throughout the world. The same pattern is found from one country to another as participants perform the ritual in the same way it has been performed countless times in the past. When people are asked why they do this, they frequently say that this enables them to participate with their ancestors or predecessors. So rituals have a kind of deliberate and conscious evocation of memory, right back to the first act. If morphic resonance occurs as I think it does, this conservatism of ritual would create exactly the right conditions for morphic resonance to occur between those performing the ritual now and all those who performed it previously. The ritualized commemorations and participatory re-linking with the ancestors of all cultures might involve just that; it might, in fact, be literally true that these rituals enable the current participants to reconnect with their ancestors (in some sense) through morphic resonance.

MANTRAS AS SPIRITUAL TRANSMISSION

In light of this idea, various aspects of religious ritual can be viewed with a new significance. For example, consider the use of mantras in the Eastern traditions.

Mantras are sacred sounds or words which often have no explicit meaning. The best known of the Indian mantras is OM. A Christian mantra (and, in fact, it is also a Jewish and Muslim mantra) is AMEN. Although it translates literally as, "So be it," it has a much deeper significance as a mantric phrase. When chanted in its original form of AMEN, it was an extremely powerful mantra. It survives at the end of Christian prayers and hymns even though most people are unaware of why it is there.

In Tibetan and Hindu tradition, the mantra is communicated to the disciple by the guru (or master) as part of an initiation. Using the mantra, the disciple is able to connect with the guru as well as with the entire tradition that transmitted the mantra through the guru. In Tibetan Buddhism there is often an actual visualization during the chanting of the mantra. The acolytes visualize the guru who has given it to them floating above their heads, and then visualize the entire lineage of masters and gurus behind him, right back to the Buddha himself. There are Tibetan pictures of people sitting and meditating with a tree growing out of their heads - a tree filled with faces and figures. These are called "lineage trees," and they represent the spiritual lineage through which the transmission comes to the disciple.

Just as morphic resonance provides a more comprehensible explanation of the power of mantras, it also helps explain certain prohibitions that might not otherwise make sense. All religions have prohibitions on blasphemy (the wrong use of sacred words), such as the Judeo-Christian admonition not to take the Lord's name in vain. People are often instructed to use mantras only in the appropriate context and not to bandy the word around in casual conversation. I myself have heard Hindu gurus caution that inappropriate use will weaken the mantra. This makes impressive sense when explained in terms of morphic resonance: Instead of acting as a key tuning one into the meditative states of one's own past and of the past of the guru or lineage of gurus, the mantra would also tune one into all the casual conversations at which the

word had been bandied around. Thus, extraneous influences which would dilute or weaken the intended effect of the mantra would be brought in via the phenomenon of morphic resonance.

RELIGIOUS "PATHS" AND ARTISTIC "SCHOOLS"

Other aspects and characteristics of religious traditions become clear when viewed in terms of morphic fields. Many religious teachers compare their way to a path, as in Christianity when Jesus says, "I am the Way," or as in Buddhism where there is the eight-fold path of the Buddha. The notion is that through a religious initiation, the individual is set on a path which the initiator of the path - Buddha or Christ, has trod before them, and on which many other people since then have also trod. The people who have gone along that path create a morphic field, and not only those who established the initial path, such as Buddha or Christ, but all those who followed after them contribute to the morphic field, making the pathway easier to traverse. In Christianity the concept is explicitly stated in the Apostles' Creed through the doctrine of the "Communion of Saints." Those who follow the path of Jesus are not only aided by Jesus himself but also by the communion of saints, all those who have trodden the path before.

If we take the notion of "schools of thought" or "schools of art," we have another area of traditions in which groups of people share in a common ideal and a common pattern of activity. Here again, artistic and philosophical traditions make more sense when considered in terms of organizing and enduring morphic fields. Art historians write about the flow of influence from the Venetian school to the Flemish school, for example. This mysterious flow of influence could be understood as the result of the process of successive schools of art tuning into the morphic fields of the earlier schools. (I am indebted to Susan Gablik, 1977, for this idea.) If we think of paintings as having morphic fields for their actual structures, we can then see how a kind of "building up" occurs through morphic resonance. A painting in a given school is

created; other people see it. Every time a new painting in that school is made, it alters the field of the school. There is a kind of cumulative effect. Just as an animal within a species draws upon the morphic fields of the species and, in turn, contributes to those same fields, a work of art produced within a school draws upon the morphic field of the style of the school and contributes to it, so that the style evolves.

KUHN'S SCIENTIFIC "PARADIGMS" AS MORPHIC FIELDS

A very similar analysis applies to the history of science. We can think of different schools of thought and different areas of inquiry in science as having their own morphic fields. In fact, we speak about the field of physics, the field of biology, the field of geophysics, the field of metallurgy, and so on. It is my opinion that we could take literally the very use of the word field in this context. Within each field of science there are sub-groups: in physics, for example, there are astrophysicists, quantum theorists, and so on, and sub-schools within those sub-groups. Entrants to each must go through the proper initiations; they must study and pass the right exams; and all have their own folklore, mythology, and founding fathers. This is essentially the insight of Thomas S. Kuhn in his great book, *The Structure Of Scientific, Revolutions* (1970). He says that science is a social activity, and that scientists are initiated into the professional group by the practicing group of scientists. These social groups are self-regulating and self-organizing, just like any other field structure. Scientists strongly resent it if outsiders come along and tell them how to run their outfit. Physicists, for example, feel that they are the best people to judge what should go on in physics. Even if governments want to regulate the science of physics to their own ends, then they do it with the help of physicists. They have to set up committees and grant-giving agencies on which physicists sit for peer group reviews.

We see the same pattern in other professional groups: in trade unions, in the American Medical Association, in groups of engineers, and so on. Kuhn pointed out that at any given time, there is a consensus within each group about the way reality operates and the way that problems should be solved. This is what he called a paradigm. In his book, Kuhn uses the word paradigm in two senses, as he makes clear in his second edition. The paradigm is not just a conceptual way of looking at things, a model; rather, it is a shared, consensual view of reality upon which the professional group depends. In each group, the members recognize those they consider proper co-members of the professional group, and those whom they recognize as outsiders, as not being within their group. This is the social aspect of paradigm.

But a paradigm also includes a model of the way problems can and should be solved. The Newtonian paradigm has a model of the way to solve physical problems; Newton's gravitational equations are an example of such a model. As students progress through the stages undergraduate, graduate, and post-doctoral work, they are given increasingly difficult problems to solve. But they are always given examples of how these problems should be solved, a "style" of doing the solving, which is acceptable within the paradigm.

A shift in paradigm involves both a new way of solving problems (because there is a new way of thinking about the problems involved), and also the building up of a new social consensus among practitioners. Both Gabilik and Kuhn have pointed out that the concept of paradigm in the sciences is similar to the notion of style in art: paradigms have the kind of cumulative, developmental, evolutionary quality that characterizes styles in artistic traditions. Indeed, Kuhn went so far as to model his theory of scientific development on art history. Previously, science had been treated as if it were a purely rational activity based on the cumulative building-up of knowledge, completely independent of the social and professional dimensions

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taking place within the scientific process. Kuhn demonstrated that the same kind of patterns which were accepted by many historians of art were also at work within the sciences.

A view of paradigms as morphic fields helps us to understand why they are so strongly conservative in nature, for once the paradigms are established, there is a large social group contributing to the consensual reality of the paradigm. A very powerful morphic resonance is evolved by this way of doing things; and that is why paradigm changes tend to be rather rare, and why they meet with strong resistance.

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understanding which I believe is in harmony with the modern idea that all nature is evolutionary.

Part 3: Extended Mind, Power, & Prayer: **Morphic Resonance and the Collective**

Unconscious

Rupert Sheldrake

Psychological Perspectives 1997

This is the third in our series of essays by Rupert Sheldrake on the implications of his hypothesis of Formative Causation for the psychology of C. G. Jung. The intense controversy this hypothesis generated with the publication of his first book, *A New Science of Life* (1981), has stimulated a number of international competitions for evaluating his ideas via experimental investigations. The results of these experimental tests are reported in his new book, *The Presence of the Past* (1988) wherein he writes:

In this book, which is less technical in style, I place the hypothesis of formative causation in its broad historical, philosophical, and scientific contexts, summarize its main chemical and biological implications, and explore its consequences in the realms of psychology, society, and culture. I show how it points towards a new and radically evolutionary understanding of ourselves and the world we live in, an

The hypothesis of formative causation proposes that memory is inherent in nature. In doing so, it conflicts with a number of orthodox scientific theories. These theories grew up in the context of the pre-evolutionary cosmology, predominant until the 1960s, in which both nature and the laws of nature were believed to be eternal. Throughout this book, I contrast the interpretations provided by the hypothesis of formative causation with the conventional scientific interpretations, and show how these approaches can be tested against each other by a wide variety of experiments. Sheldrake begins this essay with an interesting insight regarding the evolution of Jung's and Freud's conceptions of the unconscious out of the previous world view of Soul. He then explores a number of provocative ideas about "mind extended in time and space" that give us fresh perspectives on power, prayer, and consciousness.

We've all been brought up with the 17th century Cartesian view that our minds are located inside our brains. In this view, our minds are completely portable and can be carried around wherever we go, packaged as they are inside our skulls. Our minds, therefore, are essentially private entities associated with the physiology of each of our nervous tissues. This idea of the contracted mind, a mind which is not only rooted in the brain but actually located in the brain, is an idea that is so pervasive in our culture that most of us acquire it at an early age. It is not just a philosophical theory (although, of course, it is that); it is an integral part of the materialistic view of reality.

SOUL, MIND, AND CONSCIOUSNESS

Our understanding of the concepts of mind and soul is actually a question of how we define the word consciousness. I prefer to view the attribute of consciousness as being restricted to human beings and, perhaps, some of the higher order of animals in which one could say there was some kind of self consciousness. Much of the behavior which we consider to be mentally organized, however, actually arises out of unconscious processes. Riding bicycles with great skill, for example, does not involve conscious memory; it does not involve conscious thought. Bike riding utilizes a body memory that involves a great deal of unconscious action and doing. We acquire many complex skills on an unconscious level skiing, swimming, piano playing, and so on.

Such learning is notoriously difficult to describe in words because it does not involve conscious thought in the normal pattern of thought as a directed intellectual activity. A more useful concept that is difficult for us to use nowadays because its meaning is obscure to most people is the concept of the soul. In Aristotle's system, animals and plants had their own kind of soul, as did nature as a whole. This was the animistic view: the idea that there was an "anima" or soul in all living things. (Inanimate matter did not have a soul.) The very word animal, of course, comes from the word anima, meaning soul: animals are beings with soul. Actually, prior to the 17th century, it was believed that all of nature, and the earth as a whole, had a soul; the planets all had a soul. But the concept of soul was banished by 17th century mechanistic science.

The older view of soul is, I think, a better concept than that of consciousness. The word closest to it in modern usage is mind. The modern usage of mind, however, is almost identical with the word consciousness; mind incorrectly implies consciousness. We then have to use the term, unconscious mind, as Jung and Freud

did. This usage has appeared to be a contradiction in terms to the academic world, so they have tended to reject it (and Jung's and Freud's conceptions of it, as well). The concept of soul, however, does not necessarily imply consciousness. The vegetative soul, which is the kind of soul that organizes the embryo and the growth of plants, was not viewed as functioning on a conscious level. When we grow as embryos, we don't have any memory of the process. We don't consciously think out, "the heart comes here, and I know I'll develop a limb out there, teeth here," and so forth. These things just seem to happen in a way that is tacit, implicit, or unconscious but yet soul like in the way they are organized.

Until the time of Descartes, three levels of soul were conceived. The vegetative soul contained the form of the body and governed embryology and growth; all animals and plants were viewed as having it. Then there was the animal soul, which concerned movement, behavior, instincts, and so on; all animals as well as humans were seen as having this level soul. Over and above the vegetative and animal soul in human beings was the rational soul, which was experienced as the more intellectual, conscious mind.

Descartes contended that there was no such thing as vegetative or animal souls. All animals and plants were dead, inanimate machines. The body itself was viewed as nothing more than a machine. It did not have an animal soul governing unconscious instincts and patterns. Those processes were entirely mechanical in nature. The only kind of soul human beings had, on the other hand, was the rational, conscious soul: "I think; therefore I am." Thinking thus became the very model of conscious activity or mental activity, and in this way, Descartes restricted the concept of soul or spirit to the conscious, thinking, rational portion of the mind, which reached its highest pinnacle in the proofs of mathematics. Descartes' perspective left us with the idea

that the only kind of consciousness worthy of the name was "rational consciousness" especially mathematical, scientific consciousness. In a sense, Descartes created the problem of the unconscious, for within 50 years of his work, people started saying, "Wait a minute, there's more to us than just this conscious mind, because there are things that influence us that we are not conscious of." Thus the idea of the unconscious mind, which we generally regard as having been invented by Freud, was actually invented again and again and again after Descartes. By defining the mind as solely the conscious part and defining everything else as dead or mechanical, Descartes created a kind of void that demanded the reinvention of the idea of the unconscious side of the mind (which everyone before Descartes had simply taken for granted in the soul concept). (There is an excellent book on this subject by L.L. Whyte called *The Unconscious before Freud*, published by Julian Friedman, London, 1979.)

The problem we are encountering now is that, having eliminated the concept of soul in the 17th century, we are left with concepts such as mind which are not really adequate for what we mean. If we want to get closest to what people meant by soul in the past, the modern concept of field is the most accurate approximation. Prior to Isaac Newton's elucidation of the laws of gravity, gravitational phenomena were explained in terms of the anima mundi, the soul of the world or universe. The soul of the world supposedly coordinated the movements of the planets and stars and did all the things that gravitation did for Newton. Now from Einstein, we have the idea of space time gravitational fields that organize the universe. In this concept of fields one can see aspects of the anima mundi (soul) as being of the universe. Souls were invisible, nonmaterial, organizing principles. Fields, especially morphic fields, are invisible, nonmaterial, organizing principles that do most of the things that souls were believed to do.

MIND EXTENDED IN TIME AND SPACE

In Jean Piaget's book, *The Child's Conception of the World*, he describes how by the age of about ten or eleven, children learn what he calls the "correct view" that thoughts, images, and dreams are invisible "things" located inside the brain. Before that age they have the "incorrect view" (as do so-called primitive people) that thoughts, images, and dreams happen outside the brain.

The Cartesian view of the mind as being located in the brain is so pervasive that all of us are inclined to speak of our minds and brains as if they were interchangeable, synonymous: "It's in my brain," rather than "it's in my mind." In the 20's and 30's, various philosophers and psychologists, particularly Koffka, Uhler, and Wertheimer of the Gestalt school challenged this view.

I want to argue that our minds are extended in several senses. In previous articles, we discussed how our minds are extended in both space and time with other people's minds, and with the group mind or cultural mind by way of their connection to the collective unconscious. Insofar as we tune into archetypal fields or patterns which other people have had, which other social groups have had, and which our own social group has had in the past, our minds are much broader than the "things" inside our brains. They extend out into the past and into social groupings to which we are linked, either by ancestry or by cultural transmissions. Thus, our minds are extended in time, and I believe they are also extended in space. Throughout this article, I want to make a simple point that is a very radical departure from traditional theory. The traditional theory of perception is that light

rays reflected from objects travel through electromagnetic fields, are focused by the lens of the retina, and thereby produce an image on the retina. This triggers off electrical changes in the receptor cells of the retina leading to nerve impulses going up the optic nerve into the cerebral cortex. An image of an object somehow springs into being inside my cerebral cortex, and something or someone inside sees it. A "little man in my brain" somehow sees this image in the cerebral cortex and falsely imagines that the image is "out there," when, in fact, it is "in here." Personally, I find this explanation extremely implausible. In my experience, my image of an object is right where it seems to be: outside of me. If I look out the window, my perceptual field is not inside me but outside me. That is, the objects are indeed outside me, and my perception of them is also outside me. I'm suggesting that in our perceptual experience, the perceptual fields extend all around us. While, as the traditional view holds, there is an inward flow of light impulses which eventually lead up to the brain, I also experience an outward projection of the images from my mind. The images are projected out, and in normal perception, the projection out and the flow in coincide, so that I see an image of an object where the object really is located.

In hallucinatory types of perception, I can see images whether they are there, in fact, or not. Consider "psychic blindness": people can be hypnotized so that they no longer see objects which are actually in their view. In such a case of "psychic blindness," the inward flow is present but not the outward projection. More normally, the movement out and the movement in coincide with each other as part of a coordinated process, creating a perceptual field that embraces both the observer and the object.

This idea of the extended mind is a matter of common belief in ancient and traditional societies. If this concept were true, it would mean that we could influence

things or people just by looking at them. In India, for example, it is believed that a person who either looks on a holy man, or is himself looked on by the holy man, receives a great blessing. In many parts of the world, including India, Greece, and the Middle East, it is believed that if you look upon something with the eye of envy - the "evil eye" - you therefore blight it. People in many cultures still take great precautions against this so-called evil eye. In India, it is considered to be extremely unlucky for a childless woman to admire a baby who belongs to another woman (whereas in our society, this is merely good manners). This is because she is assumed to be envious of the baby. Once a childless woman breaks this taboo, rituals must be performed (such as making a circle of salt around the baby and reciting various mantras) to exorcise the harmful influence.

When new buildings go up in India, scarecrows are fixed on the buildings; similarly, when there is a good crop of wheat or rice, scarecrows are placed in the field. These scarecrows are not intended to "scare away crows" literally, but rather to attract the evil eye of people who might otherwise blight the crop by looking upon it with envy. The scarecrows act as "lightning conductors" because anything with a human figure attracts the eye. The Indian people also put out round pots with huge white spots stuck on sticks; the eyes are drawn to the pots because the white spots took like eyes. For similar reasons, people throughout the Middle East wear talismans which contain eyes; in Egypt, the eye of Horus serves a similar function. All this is done to protect against the evil eye.

If we do affect things or people by looking at them, then can people perceive when they are being looked at, even when they cannot actually see some one looking at them. In both realms of fictional literature and real-life experience, many people claim to have had the experience of knowing they were being watched and then

turning round and seeing someone staring at them. As undergraduates at Cambridge, some of us had read a Rosicrucian advertisement about the power of the mind. It said something about, "Try this simple experiment: look at the back of someone's neck and see if they will turn round after a few minutes." During boring lectures we acted as suggested, and it often worked; we found that we could fix our attention on the back of someone's neck and after a minute or two, the person often looked uncomfortable and turned round.

Although there is a great deal of anecdotal evidence that people sense when they are being watched, there is almost no scientific investigation of this phenomenon. The entire world literature on the subject that I've been able to find consists of three papers: one written in 1896, the next one in 1910, and a final paper in 1953. Two of the papers show positive effects, although they were both done on very small subject populations.

I've done some simple preliminary experiments over the last few months in workshops. The way we conducted the experiment was very simple. Four people volunteered and sat at one end of the room, with their backs turned toward the audience. We put each person's name on his or her back by way of identifying them. Then, in a series of trials, I would hold up cards in a random sequence containing the name of the person the audience was to watch. For example, if I had selected "Tom," I would hold up a card reading, "Trial 1, Tom," and everyone in the audience would stare at the back of Tom's neck for fifteen seconds. At the end of each trial, all four subjects would write down whether or not they thought they were being looked at during that time period. At the end of the series of trials, we compared when the volunteers thought they were being looked at, with whether or not they really were being observed.

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My results so far indicate that people vary tremendously in their degree of sensitivity to being watched. In one workshop I conducted in Amsterdam, there was a woman who was 100 percent accurate; she knew each time she was being watched. She was the best subject I've encountered. When I asked if she knew why she had done so well, she said that as a child she used to play this game with her brothers and sisters. They practiced and she got very good at it; she had volunteered because she was sure she'd still be able to do it even though she hadn't done it for 20 or 30 years.

A friend of mine has been conducting this experiment in one-on-one trials with friends and colleagues. In over 600 trials ping 65 - 70% of the time, which is statistically significant, indicate that there is an outgoing influence from the eyes or from the mind; perhaps mental influence does extend beyond the boundaries of the physical body. It has been suggested that this might be a telepathic rather than a visual influence. There is a simple method of checking that out. In some trials, the people doing the looking could turn around so that they are facing away from the volunteers and just think about the designated volunteer rather than look at him or her. If there was greater effect when the volunteers were actually being looked at than when they were being thought about, then one could be type was functioning.

A variation of this experiment is to examine the effect of distance on the perception of the subjects. Have the person being looked at located at a considerable distance from those looking at him (binoculars could be used) and then see if the effect still works. If it does, then set up trials using video or closed circuit television. Imagine an experiment in which there were four people in a studio (or even in different studios), with cameras running continuously, and a randomized switching device so

that the person being looked at in each trial is randomly determined. Imagine a typical television audience of millions of viewers. Now, what if the subjects could distinguish when they were being looked at by other people over television. There one would have a massive, large-scale demonstration of extended mind in a way that could be conclusive.

This format, too, could be extended. You could have people looking at subjects in the Soviet Union via satellite linkups; one could elaborate this pattern indefinitely. What happens to actresses and actors, to prominent political figures, when they are looked at by millions of people? Are they affected by being in people's minds?

Large-scale experiments to test hypotheses could do more to bring about a paradigm shift than any amount of lecturing about the limitations of the mechanistic theory. Our perceptual fields may reach far beyond our physical brains; when we look at the stars, our minds may literally reach to the stars. There may be almost no limit on how far this process can extend.

GEOMANCY: THE SPIRIT AND POWER OF PLACES

If we are willing to consider morphic fields for minds and societies and animals and plants, it would also seem sensible to think of fields for ecosystems, or even for particular places. In fact, there is a "science of places," geomancy, which is concerned with just this kind of field. Geomancy is an ancient system for exploring the interrelationship of places and features of places; for locating power spots for building cathedrals and churches and temples, and for avoiding unsuitable places which have harmful influences. In ancient Europe there is no doubt that stone circles such as Stonehenge (and other places of ritual importance) were chosen

geomantically, in relation to the lay of the land, the flow of water, the direction of wind, the vegetation, and the orientation to the sun. There is also no doubt that cathedrals and churches in medieval Europe were built on sacred places which had been geomantically located; on places of power, sometimes sacred wells or sacred graves, sometimes places which manifested a powerful relationship to other features of their environment.

The Chinese system of geomancy, which is still very much in use today, is a system of understanding the flow of energy in places. It involves underground water, the slope of lands, the way water flows when it rains, wind direction, and orientation to the sun. No traditional Chinese would choose a place for the graves of ancestors, or a house to live in, or a place in which to conduct business, without taking into account the properties of the place, the balance of energies, and the flow of "chi" (as they call this energy). Geomancers flourish in modern Hong Kong; no businessman, however "modern," would undertake an enterprise without geomantic advice. If things go wrong, people call in geomancers to find out how they can restore the balance of energy.

This kind of geomantic consciousness is still present in most traditional cultures. In India no one would consider building a temple on a piece of land simply because there happened to be a convenient vacant lot. First, the potential builder would check to see that it was in the right place and had the right balance of forces. American Indians, too, have places of power which are considered sacred and significant in various ways. This whole sense of the particularity of place and the balance of energy within it is an environmental factor which traditional societies have taken into serious account.

Our own society is in a terrible state of geomantic amnesia. These principles have been forgotten by most of us, and we assume that one location is just the same as every other location. None of us fully believes this is so, but it is the accepted public posture. I think that geomantic amnesia arose partly because of the Protestant Reformation, which abolished the idea of the sacredness of the earth and the sacredness of place, and partly because of mechanistic science, which emphasizes the universality of the laws of nature and implies that the laws of nature are exactly the same everywhere and at all times. This attitude, this paradigm, blinds us to the particularity of place and time. Traditional cultures have emphasized that time, too, has qualities. Days are not just the same as other days. Christmas has a different quality than Thanksgiving, which has a different quality from Easter or Halloween; each has a different quality. The seasonal occurrences of the great festivals of the year relate to this particularity of time: certain things can happen more easily at certain times than at others. And, of course, ancient sciences such as astrology are explicitly concerned with the particularity and uniqueness of time.

If we start thinking geomantically, a huge paradigm shift occurs in our experience of the environment. What if the quality of place does influence what happens there? What if what goes on in certain places is influenced by a balance of forces and energies, which in our society we've forgotten about? For example, Americans have forgotten that Washington, D.C., the power center not only of America but of the modern world, was geomantically designed. The entire city was laid out by Freemasons, who were aware of these ancient principles of geomancy.

When I was in Washington a few summers ago, I thought that, in light of geomantic principles, I ought to investigate the building of the Pentagon. The site selected in 1941 was originally known as the Devil's Hollow, and there was a great deal

of controversy as to whether it was a suitable site. It would be very interesting to research the newspaper reports of that time period to see just what issues were involved in this controversy. The Pentagon is five-sided, as the name implies, and it has five corridors on each floor and five floors on each side. At the heart of power in the Pentagon are the five-star generals, who wear five-pointed stars which have pentagon shaped centers. The in-house newspaper is called the Pentagram. Interestingly, the sign of Soviet military might is also none other than the five-pointed star, a red star painted on all Soviet missiles and tanks.

So what is going on here? It would seem of some historical interest to investigate the process by which the location for and design of the Pentagon was chosen. Who was the architect? Was he a Freemason? Why did he adopt this five-fold symbolism? What system of symbolism was he tuning into, consciously or unconsciously? What archetypal patterns were at work at that time in him? Such a research project might shed a different light on some of the questions of peace and war. A similar analysis of the Kremlin, the ancient center of power in Russia, would be equally informative.

What would we discover if we investigated the geomancy of Silicon Valley? What is it about that location that makes it the world center of computer innovation? What about the geomancy of Los Alamos, part of which is located on an ancient sacred Indian site? The site was chosen by Oppenheimer who knew the area well, because there is a mesa shaped like a human being; he located the Los Alamos laboratories on the part of the mesa that formed the "head." What about the geomancy of Hollywood, the center of the world's fantasy industry? It is enclosed by hills with a north-south flow of energy and water, which is very fortuitous in geomantic terms.

Since places are frequently named after spirits, what about the paternal or maternal spirits of such places? In the Christian tradition the "spirit" is presented in the form of a saint or holy figure such as the Virgin Mary or the Angels. What is the role of Our Lady of the Angels, obviously a form of the celestial goddess, who is the patroness of Los Angeles?

When we begin to ask these kinds of questions, the world begins to look very different, for we realize that there may be a particularity of place and of time to which our minds are linked. If our minds are actually extended, as I am suggesting, then our minds must interact with the environmental fields and the qualities of place and time in which we exist. This would mean that our "selves" - which we usually think of as "portable" and "miniatuzized" inside our brains - would no longer be quite as contained and bounded as we previously thought. Everyone listening to me lecture, for example, would be connected just by being in the field of the place. At one and the same time, they would also be connected in an extended way back to the place where they live. If there is this kind of field connection - like filaments of people's morphic fields - then when we get on jet planes to travel from one place to another, we would be connected through the flight lanes to great airdromes. If we think of these morphic filaments as elastic bands attaching us to places, then "jet lag" would occur because we're connected by a kind of elastic band to the place we've just left.

If we are to have a new, more beneficent understanding of our environment, then I think we need to develop a kind of psycho-geometric sense. Our minds are not just in our skulls; they are connected to our environment. This view also reframes the whole notion of ecology and conservation, of pilgrimage and sacred place and sacred time. The concept of the extended mind enables us to understand many

traditional systems, including traditions of our own culture, much better than when we are in the "modern" framework with its limited notion that the mind is simply a private phenomenon inside the brain, completely portable and transportable.

A NEW VIEW OF PRAYER

The concept of the extended mind could also lead to a new understanding of the power of prayer. The traditional belief in prayer is that praying for people who are in distant places, or praying about the weather, or any kind of intercessory or petitionary prayer - can actually have an effect, by whatever means, at a distance. The "modern" view of prayer is that there are a few chemical and electrical changes going on inside the brain that may benefit the person praying, through a comforting illusion that the prayer will have a positive effect in the world. According to this view, if I pray for a sick friend in England, for example, the electrical impulses of my praying activity would be so weak that they would barely be detectable in the next room, let alone reach my bedridden friend in England. But if prayer functions in a manner that it is believed to function, then it must involve action that takes place at a distance, either an action of the mind via its extension, as I've suggested, or an action of a spiritual agency. It may be that we are connected with everybody we think about and all the places we are attached to through our extended minds. Our minds, in fact, may be vast, far-reaching spatially extended networks of connection in space and time - networks of immense scope in which the brains inside our heads are but a portion.

THE GLOBAL MIND

This whole topic of the extended mind becomes particularly important at the present time when there is a tremendous interest in the idea of connecting up large numbers of human minds. Peter Russell presented this concept in his book, *The Global Brain*. More recently, we have actually linked billions of people by satellite for projects such as "Live Aid," or the international peace meditation held in December 1986, or the two days of Harmonic Convergence observed in the middle of August 1987. Then there are the full-moon peace meditations which many people practice at the exact instant of the full moon all around the world. All of these convocations are based on the idea that the mind is extended, that it can "link up" with other minds, and that simultaneity is particularly important in creating a kind of group mind phenomenon. None of us has a clue as to what is going on when billions of people are linked up via viewing the same image on satellite television; no one knows, and no traditional system of psychology can tell us. Ordinary academic cognitive psychology cannot illuminate this area for us because it lies beyond the scope of laboratories and behavioristic experimentation, the way they are currently practiced.

At present we are moving into a world in which the notion of the extended mind in its various forms - the extended mind in social groups, the extended mind in space, the extended mind in time - is becoming increasingly important: But we do not yet have a clear, lucid way of thinking about it or conceiving of it. Jung's view of the "collective unconscious" is just one aspect of the extended mind; the geomantic aspect of it, and the connection to time and place, is another. The concept of the extended mind as a morphic field, though a new paradigm which is not yet fully formulated, enables us to glimpse bits of a new world-view. And it is very, very different world view from the one we currently hold, in which our minds are

conceived to be entirely private affairs inside the privacy of the nervous tissue within our brains.

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Part 4: Prayer: A Challenge for Science

Rupert Sheldrake

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Since ancient times, a strong and pervasive belief in the efficacy of prayer—for the living and the dead—reinforces the notion that consciousness is not limited to the physical body. Not only do traditions throughout the world share a belief that prayers may in some way help (or invoke help from) deceased ancestors, many cultures throughout history have believed that prayer can bring about changes in the physical circumstances of the living.

If prayer affects things in the physical world, its effects should be measurable, and science should be able to investigate it. There is a very scattered literature on this, but when you bring it all together as Larry Dossey has done in his recent book, Healing Words (HarperSanFrancisco, 1993), you see there is quite a large number of interesting experiments with challenging results. Out of 131 controlled experiments on prayer-based healing, more than half showed statistically significant benefits. One of the best known is a double blind study of 393 patients in the coronary unit at San Francisco General Hospital. In this experiment, 192 patients, chosen at random, were prayed for by home prayer groups, the others were not. The prayed-for patients recovered better than the controls, and fewer died.

In order to make sense of these data on the efficacy of prayer, science will have to change its underlying assumptions about the nature of causality. Currently, the standard view is still purely mechanistic—notwithstanding all the recent talk about chaos and complexity theory. When applied to the life sciences, chaos and

complexity theory—even with the help of highly sophisticated computer modeling—still explain the world in terms of mechanical causes involving known physical and chemical processes.

The data from empirical studies of prayer, as well as from the large literature reporting psi research in telepathy, clairvoyance and psychokinesis, seriously challenge the mechanistic view. Some other causal agent besides the mechanics of electrochemical interactions is required to make sense of the observed phenomena. Holistic thinkers generally divide into two main categories. The majority want to have holism on the cheap. They want a holism which doesn't conflict with science as we know it. Instead of exploring the possibility of new causal factors, they prefer to explain holism in terms of complexity and self-organization of conventional mechanical forces, modeled with sophisticated mathematics and the latest computer techniques. Nothing essentially different from physical and chemical interactions is considered to account for the properties of living systems.

The other group of holists, a minority among which I include myself and Larry Dossey, think that there is more to it than just what we know about chemistry and physics and clever mathematical models. My view is that there are other causal factors in nature, processes, that make actual differences—causes in nature which bring about new kinds of effects that we have to take into account in order to understand our experience and the world. These new causal factors are involved in things like paranormal phenomena, prayer and healing.

The whole thrust of my morphic resonance theory is to say there is more to nature than just the standard forces in physics. And what's more these other agents are at the very heart of the way things are organized in chemistry, in life, and in consciousness.

Prayer and Mental Fields

How might prayer fit in with the scientific view of things? I shall focus on two broad categories of prayer: petitionary and intercessory. In petitionary prayer we ask for something for ourselves; in intercessory prayer we pray to a higher power for the benefit of other people (either living or dead).

In praying for other people and for ourselves we ask a higher power to bring about a particular result. For me, this is what distinguishes prayer from positive thinking. Positive thinking involves nothing more than one's own mind, one's own desires and wishes, but petitionary and intercessory prayer are put in the context of a higher power. For this reason positive thinking does not fit into the category of prayer—even though it is often confused with it.

Whether petitionary or intercessory, prayer clearly poses a challenge to the mechanistic view of the world. According to this view, there is no way that thoughts going on in your head, which at most create small electrochemical disturbances barely detectable a few inches from your head even by highly sensitive apparatus, could affect someone or something at a remote distance.

If you were practicing positive thinking or some of the more specifically directed forms of petitionary prayer, you could resort to explanations in terms of telepathy, or if it were a prayer affecting physical objects, you might say it was psychokinesis. But such explanations serve only to replace one set of explanations which lie outside the scope of modern mechanistic science with another set. There is nothing in mechanistic science that could allow mere thoughts inside my mind, whether cast in the form of prayer or as positive thinking, to affect things at a distance. It just can't happen.

The key to understanding prayer as a scientific phenomenon requires, in my view, getting away from the idea of the mind as somehow inside the brain. If we think our minds are confined to our brains—the standard view—then since what goes on in our brain occurs in the privacy and isolation of our own skull it can't affect anyone else.

However, I see minds being field-like in nature (part of my general view of morphic fields), and I see mental fields as the basis for habitual patterns of thought. Mental fields go beyond, through, and interface with the electromagnetic patterns in the brain. In this way mental fields can affect our bodies through our brains. However, they are much more extensive than our brains, reaching out to great distances in some cases.

As soon as we have the idea that the mind can be extended through these mental fields, and over large distances, we have a medium of connection through which the power of prayer could work. We are no longer dealing with a purely mechanical system in the brain, with absolutely no way of connecting the brain and the observed effect—for if that were the case the phenomenon of effective prayer would have to be dismissed as delusion or coincidence. With a mental field, however, we have a medium for a whole series of connections between us and the people, animals and places we know and care about—with the rest of the world, in fact. When we pray, those extended mental fields would be the context in which prayer could work non-locally.

Non-Localized Mind

Clearly, this does not amount to a fully articulated scientific theory of prayer; it is highly speculative. But, I believe, it is also very clear that we need to have a much broader view of how the mind is extended beyond the brain. We need a theory of what I call the "extended mind" as opposed to the conventional scientific view of the "contracted mind" holed up inside the skull. This view of a contracted mind came from Descartes in the seventeenth century. It is a model of consciousness which separates our minds from the whole world around us into a small region in the brain—a model of the mind which plainly contradicts direct experience. For example, when you see this page in front of you, you experience it as being outside you, not

inside your brain. To say that this and all your other perceptions are located in your brain is a theory, not an experience. It is important, however, not to envisage the extended mind as some amorphous field, a kind of undifferentiated Universal Mind. I don't think we should make a large leap from the concept of a contracted mind to a boundless universal mind. Such a jump isn't helpful scientifically.

My idea of morphic fields is that even though they are extended and non-local in their effects, they are still part of our individual and collective mind, but not to be equated with some ultimate Universal Mind. The morphic fields are not God. They are non-local in the sense that they can spread out over immense distances (as, for instance, gravitational fields do), so that if I were praying about somebody in Australia from my home in London the morphic field would carry the information and the prayer could work. But my mental field wouldn't usually spread out to Mars, for example, because there is nothing connecting me to someone on that planet. If someone I knew had traveled there on a spaceship, then there would be a link. For morphic fields to have a mental connection I believe there has to be something that links you to the other person. Even if you have never met the other person, I believe just knowing their name or something about them seems to be enough to establish a connection, though this connection is likely to be weaker than that between people who know each other well.

You could picture it something like this: When two people come into contact and establish some mental connection (perhaps experienced as affection, love, even hate) their morphic fields in effect become part of a larger, inclusive field. Then, if they separate from each other it is as if their particular portions of the morphic field are stretched elastically, so that there remains a "mental tension" or link between them. There has to be something like this that relates the two people.

Nested Sets of Morphic Fields

Morphic fields are organized in nested hierarchies (see below). For example, there are morphic fields surrounding the atoms in our bodies, which are within the higher level morphic fields of molecules, organelles, cells, organs and limbs, all of which exist within the morphic field associated with the entire body. The body field, in turn, would be within the field of relationships that constitute a family, within a larger social group. Societies, in turn, are embedded within ecosystems, and ecosystems within the planetary system, "Gaia". And by extrapolation, we could extend the series of nested morphic fields until we reach out beyond planetary, solar system and galactic limits to encompass the entire universe.

Even Einstein's space-time field of gravitation is a universal, cosmic field holding everything together and linking the entire universe, in fact, making it a uni-verse. It does the same thing as the World Soul or Anima Mundi of neo-Platonic philosophy. It embraces the whole cosmos. There are levels upon levels of morphic fields within fields, within which we are embedded. Human life is embedded in vastly larger fields of organization. To what degree they are conscious still remains in the realm of speculation. But I would assume that higher-level fields are not less, and probably more, conscious than we are. I would think they are more conscious than we are not simply because they are larger in size, but because they are more inclusive, contain more complexity, and encompass more possibilities.

I think that is one way of interpreting traditional doctrines about super-human intelligences, or cosmic intelligences, usually thought of in Christianity as the hierarchy of the angels. The word "angel" normally conveys the image of a good-looking youth with wings; but that's simply a pictorial representation. The traditional doctrine behind that image, however, is of a super-human intelligence. And if the solar system and galaxy have intelligence, then one might be an angel and the other an archangel. In some traditional Christian doctrines there are, for instance, nine hierarchies of angels or levels of intelligence. And I would see these as

equivalent to intelligences, minds or organizing fields at different levels of complexity. The galactic angels, for instance, would embrace or include those of solar systems, which in turn would include those of planets.

This is a description of a cosmos which has intelligence at every level, not a view that sees consciousness as something that emerged from unconscious matter.

Conscious intelligence was there to start with. The place to look for it is not going to be in atoms or quanta (although there may be some kind of consciousness there), but in solar systems and galaxies and in the whole cosmos. There may be all these different levels of imagination, intelligence, and mind throughout the whole of the cosmic organization. All traditional doctrines that I know of have recognized something of that kind.

Notes & References

1. For an extended discussion of these theories, see R. Sheldrake, *A New Science of Life: The Hypothesis of Formative Causation* (Tarcher, 1981), and *The Presence of the Past: Morphic Resonance and the Habits of Nature* (Vintage, 1988).

Opening Up To The Numinous

As a scientist I wasn't always interested in prayer. In fact, in earlier days I believed it was all nonsense. I was an atheist; God had no room in my scientific education. After graduating from Cambridge, I thought I had outgrown childish belief structures like religion, and that rational science was the way forward. I had a typical secular-humanist atheistic worldview for a long time, well into my thirties. And this, of course, is the worldview that most of my scientific colleagues still have. They regard religion as a relic from a superstitious age. In that context, prayer is completely meaningless, except insofar as people believe in it they may derive some psychological benefit—a kind of "placebo effect".

Then in 1968 I visited India, and all the materialist assumptions I took for granted just didn't seem to work any more. What struck me most was the experience of

being immersed in a culture that worked in an entirely different way to what I had been accustomed. In this exotic culture, the idea of what we might call "other realms"—the supernatural or spiritual—was simply taken for granted by practically everybody. There was a palpable sense of another dimension to life, everywhere you looked, and everywhere you went.

As an atheist, of course, my initial reaction was to think they were deluded in their beliefs. Yet on the other hand, these beliefs produced a fascinating culture. Even people living in the extremes of poverty seemed to have more joy in their lives than most people I knew who lived in the lap of plenty. I was touched deeply by the natural human warmth, and the quality of the people and of their way of life.

According to the materialist beliefs I had, poverty equaled misery; wealth and good medical attention meant, if not happiness, then at least a much better quality of life. In India I saw it wasn't as simple as that. The people there were poor beyond the comprehension of most Westerners, yet everywhere they walked about with the most radiant smiles. Walk along a street in London, Paris or New York and you see mostly harried, worried faces. That difference impressed me very deeply.

The contrast between the sense of inner joy and peace I experienced all around me in India compared with the tense way of life in the West was so striking that I decided to investigate meditation. For about four years I did various forms of Hindu practice. This didn't conflict with my scientific attitude because meditation didn't challenge my whole scientific worldview. On the contrary, I could approach my study of meditation in a truly scientific spirit. Its appeal is that you do it and see if it works. It's empirical. You sit, you calm your breath and you observe what happens. I started with Transcendental Meditation which sounded scientific in that it was supposed to lower lactose levels in the blood, have beneficial effects on the circulation, and calm brain activity. I found that meditation did indeed work. I experienced within myself that calm I was seeing all around me in India.

As a scientist I wasn't troubled. I could understand meditation by explaining to myself that it wasn't opening me up to other realms of consciousness, but that it was simply changing the physiological state of my brain. To say that breathing in a particular way and doing a particular kind of mental activity could affect my mental and physical state did not challenge my worldview.

Nevertheless, although I could follow Hindu practices, India was such a completely

different civilization and culture that there was no way I'd ever be an Indian. I

began to have a sense that I would need to recover my own tradition if I were to share in the deep perceptions and peace that I saw in the people around me.

Furthermore, after living there a while, I also saw the shadow side of the Hindu tradition, which I hadn't seen in my earlier brief visit. There is a fatalistic lack of concern for other people that was alien to me. That view was at variance with my more optimistic, progressivist Christian culture.

In India I came face to face with the realization that rooted in the Christian tradition is the sense that you can, and should, help other people; we can aim for some better state of affairs on Earth, for the whole of society. When I talked with my Indian friends and colleagues, it became very clear that I had this view deep within me. I realized that this sense didn't come from Hindu philosophy, nor from my atheistic outlook. Instead, I saw it came from a deeply embedded Christian view of the world that I carried with me unwittingly. In fact, I realized this partly because in conversation with my Indian friends they would frequently point out that so much of what I was expressing was a Christian view. The repeated revelation of this, even to an avowed atheist, was difficult to ignore.

I spent some time living in Father Bede Griffith's ashram, and I found that coming back to a Christian path made sense to me. I began praying and discovered that it was more helpful to me than meditating. I would say that meditation involves a kind of separation between the practice and the rest of one's life; it is going into

another space altogether. You could say that contemplative prayer would have the same effect. But for me, ordinary petitionary and intercessory prayer, such as the "Lord's Prayer", links the events of my daily life directly with my practice. I pray about what I've done that day and what's coming up the next day. It's a matter of bringing the very fabric of one's life—relationships, work, and personal concerns—into the context of the spiritual life.

How Do Mental Fields Work?

My hypothesis of morphic resonance and morphic fields has grown out of the notion in developmental biology of "morphogenetic fields". This idea dates back to the 1920s in the work of biologists A. Gurwitsch and Paul Weiss. In modern developmental biology these fields are usually regarded as heuristic devices, or as mathematical abstractions with no causal effect. By contrast, I interpret them to be causal fields with an inherent memory given by morphic resonance; in other words I regard them as one kind of morphic field. Other kinds of morphic fields include behavioral fields, responsible for coordinating instinctive or learned behavior, mental fields, responsible for organizing mental activity, and social fields, responsible for organizing social groups.

If fields are the medium of mind then what you have in the brain is an interface between one kind of field and another kind of field. All organization in the body has morphic fields underlying it. Morphic fields in the brain interact with electromagnetic (EM) fields in the brain. However, the nature of this interaction is indirect. Rather than morphic fields working directly through the electromagnetic field, they interact through both affecting the same thing—in this case, physical activity within the brain.

I am not saying that there is a linear-type causal relationship between brain-electromagnetic-morphic fields. I regard mental fields as one kind of morphic field

that affects the brain, shaping its activity, and this affects the EM field associated with the brain.

Here you've got fields acting on fields: morphic fields surrounding all the cells, tissues and organs of the body, as well as in molecules and cell membranes, and indeed in quantum-matter fields. This is contrasted with the more usual view of the spirit-matter dichotomy—where mechanical matter and ineffable spirit interact in some kind of quasi-miraculous way. If you say that the spirit acts on the EM field, you've got a problem of miraculous intervention.

On the other hand, if everything in nature is organized by fields, and if mental fields are a more subtle kind of field, you've got no sharp dichotomy—you've got fields acting through fields at all levels of reality. So the mind-body problem ceases to be a sharp dichotomy.

<http://soulinvitation.com/ai/>

Physics of Consciousness / Artificial Intelligence

Theory Based on Recursion / Embedding

A development & comment on Dan Winter's theory of Artificial Intelligence / Consciousness among waves by measuring self-similarity and self organization using FFT. This work was originally published in Portuguese in Department of Computer Science of the University of Sciences and Technology of the New University of Lisbon, Portugal., by the author Gustavo Figueiredo. It is emphasized that what follows is only a preliminary excerpt (minus images) which has only been preliminarily translated. Interested readers are encouraged to communicate with the author at gus_fig@yahoo.com

"Our dynamic duality model elucidates the quantum background of non-locality, principle of least action and Golden mean, unifies the quantum and relativist theories. Tending of open systems to conditions of Golden mean is supposed to be a driving force of their self-organization." From Alex Kaivariainen

PHYSICS OF CONSCIOUSNESS

Consciousness as a self-referential system of non-local nature and its relationship with Computation and Cognitive Sciences

By

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July, 2001

"(..)All significant access to superluminal scalar waves, tachyon, and access to doorways through the speed of light limit, through time barrier, and through event horizon will be PHI based harmonics... Phi based and 60 degree dodeca 12 cone base capacitive change come optimizes capacitive effects on precipitation, cloud formation (of Trevor Constable Weather Engineering on the High Seas), necessary architecture geometry for arranging data in a fractal for computer compression, necessary architecture for arranging neural net nodes for fractal and self organizing/self aware (...)"

"The Physics of Phi", Daniel Winter

"Fractality and Recursion Hold Clues to the Origin of Flowering Self-Awareness and Consciousness..."

"Sacred Geometry: The Shape of Things Eternal", Daniel Winter

"Self-Reference/Self-Awareness: You were getting angry, then you became aware, that you were AWARE you were getting angry... then you became aware that you were aware that you were aware... you were getting angry. Each time you got outside yourself to look at your self, you got more perspective or context in your understanding of your own anger. As a result you had more ability to steer the direction of your emotion with a large horizon of awareness."

The only angle at which a wave can re-enter itself or refer to itself non-destructively is the phi spiral. This then is the optimal geometry of self reference or self awareness. It becomes measurable in the magnetic angle of the hearts "wings" at the moment of compassion or embedding. It becomes evident in the PHI harmonics of the brain and heart at the moments of peak awareness."

"Making Light of Word: A Physics of Consciousness Glossary", Daniel Winter

AUTHORS NOTE

The multidisciplinary nature of Cognitive Sciences is very evident in this work. I appreciate the opportunity to present a review that seeks to approach even if briefly, certain studies related to the Physics Consciousness and other similar areas that, in some theoretical and some practical ways, demonstrate that we are facing a paradigm shift, with obvious consequences, as much for the Computation and Cognitive Sciences (CCS), as for Computer Sciences in general.

This theme inspired me way beyond mere academical interests. The intent here is to move the investigator to a new vision. However, we are equally aware that these are still the first steps in this area and that it still lacks too much before we can begin to seriously approach this subject. On the other hand, and in the sense of preparing the basis for future investigations, the review here seeks to gather the maximum number of accepted and scientifically proven premises that are directly supportive to this 'embedable' way of thinking, (in a way to motivate the most skeptical investigator or less expert of in this field of knowledge).

I also want to state my gratitude to all those that helped me doing this work. In the first place, I send a word of great esteem to Daniel Winter, for his vision, intelligence and for that courage and tenacity that have been allowing him to fight against all the ingrate obstacles that have been confronting him along his life. Our gratitude is also for his magnificent support rendered for this work.

Daniel Odham (PhD), another collaborator of Winter in the development of the microprocessor Heartlink was equally indispensable for the elaboration of the present work. With him, I shared some possible solutions for the implementation of the hardware proposed by Winter, based on the analysis of the 2nd Order Fast Fourier Transform (or 2nd order FFT) in the coherence detection in biological oscillators (EKG and EEG Coherence at Self-Awareness peaks).

My gratitude extends to: Rupert Sheldrake, for his necessary Morphic Resonance theory and for the bridge he built between "some inherent creative intelligence in

mind and nature" and Consciousness; to David Chalmers, for his sagacious analysis on the search of the Neural Correlate of Consciousness; to Churchland, for the way he unconsciously made us understand that Mind is not merely Computational (he was trying to prove the opposite...) And finally, to my great friend in this journey, the historian and investigator Jorge de Matos PhD, collaborator of the Sociology and Ethnology of Religions Institute at the New University of Lisbon, for the great inspiration that in key moments he gave me to this work.

July 2001, Gustavo Figueiredo, Parede, Portugal

INTRODUCTION

We demonstrate that Consciousness is a self-referential system of non-local nature and, for that reason, it is not totally dependent on (or guided by) our brain's functions. The investigation developed in this area by the theoretical physicist Daniel Winter, is the basis of our work, and the so-called Neural Correlate of Consciousness (NCC) of David Chalmers, is hereby proven to be indistinguishable from the process of distribution of consciousness (awareness distribution), which, as Winter suggests*, most probably happens at the synapse level. Therefore, we equally suggest that the NCC should instead be called NGC, or in other words, Neural Gateway of Consciousness.

The "Complete Theory of Consciousness", as proposed by Chalmers, finds here its requirements all satisfied for the first time, thanks to Winter's theory, which we use to demonstrate that those long awaited answers in fact exist and that they are scientifically plausible. In that same context, we demonstrated that Damásio's perspective regarding consciousness is incomplete and, in that way, it is incompatible with Chalmers' theory.

*Note here Most specifically Winter would suggests that consciousness or wave self-organization exists wherever wave systems become most fractal or self-embedded. The fractal or recursive harmonic content of the synapse's in the brain, the geometry of the spark gap at the core zipper of DNA, and the harmonic content of the EKG during BLISS collectively

would thus possess this doorway to CONSCIOUSNESS as re-cursive turning-inside-out-ness optimised to the point of apparent IMPLOSION. This is demonstrated for example by the tiny brain aural harmonics restrained to embed in recursion / Jacob's Ladder Mart Watke's work apparently end addiction and attention deficit by literally creating the centering force of implosion.

This paper intends to demonstrate that the "process" we call consciousness, or some times Mind (which is different), corresponds to the only physical process able to start the collapse of a wave function in an universe made only by waves - the Universe we sometimes think we know so well. In other words, we defend the theory that Mind still point maker - is the only architect of reality and, in that way, we will consider a series of implications in what are relative to the actual vision about Computation and Cognitive Sciences.

Besides this demonstrative approach, we will try equally to prove the scientific validity of some postulates relatively to the theory of the nature of consciousness just as it is presented by Daniel Winter.

Additionally, we postulate that in the case of Humans, this biological process (in our opinion still badly understood), has its foundations on a system that is different from the neural nets working in the brain, it doesn't exist under a totally separated context from these nets, nor it is easily detectable through neurobiology. It's structure is composed by existent units of consciousness in a quantum field, where the information, free from what we call Newtonian Physics, acquires a natural tendency to organize in stable forms of infinite compression. According to physicists' opinions and investigators like Jean Charon or Arthur Young (see "Reflexive Universe"), every point in the space-time grid is conscious, and the human brain is a neural structure permeated by these units, just as A. I. Rosenberg demonstrated it in "Consciousness and thoughts: the mind speaks for itself." Or still,

just as Amy Lansky stated, "consciousness is an active force that we can exercise in the universe and not simple a passive perception of that same universe."

Therefore we study consciousness, demonstrating that it operates in a more subtle plane, less dense, not merely rational, but always logical. We will include an approach to the electric field emanated from the human heart muscle and, inside this analysis of the more subjective aspects of consciousness, we will reaffirm under a scientific perspective, Blaise Pascal's famous sentence: "The heart has reasons that reason itself knows nothing about."

The practical result of this new perspective may be more interesting than ones now proposed and practised according to the exclusively computational model of the brain. In an analysis of the recently invented Heartlink Monitor, where the physics of consciousness here discussed are somehow put in practice, we verify that the own biofeedback process and morphogenesis of live systems are part of a dimension not directly measurable in the quantum field or in other fields yet not totally understood. However, this reality is directly measurable in the classic physical plane, if the more noble theoretical concepts related to this study are properly applied. Winter proposes that self embedding and self awareness can be measured by spectrum analysis seeking a certain embedding ratio between harmonics with oscillating system , as is perfectly measurable in the case of the human heart or even the brain, (using the "Heartlink Monitor" as discussed below).

NOTE

All the images and illustrations here presented were made by the author, except as otherwise attributed. We also underline the fact that Daniel Winter, one of the cited investigators and active collaborator in the present work, granted us authorisation to any of his graphical works, as long as it is properly identified as marked as his

creation.

1. MORPHIC RESONANCE AND CONSCIOUSNESS

"The problem of consciousness is perhaps the largest outstanding obstacle in our quest to scientifically understand reality."

"Consciousness and Cognition", David Chalmers

"Il ne faut rien imaginer: il faut se taire... et écouter... Il faut regarder dans le silence, sans vouloir voir et accepter le Rien, car ce que l'homme appelle 'rien' c'est cela la Réalité."

Schwaller de Lubicz

In the study of the Computational Sciences, a factor of extreme importance is the way local interactions in a given system can control or influence its global behaviour and responsiveness. Not only is this important for its expected flexibility and dynamics, but also to the implementation of fault tolerance mechanisms. Let us imagine, for instance, that the normal functioning of a given software application depends broadly on the results obtained in small and apparently less decisive routines of the computation being made - for instance, the communication routines in a distributed system. If one of them exhibits flaws during the execution of a process, the expected operation of the entire application can fail. The more dependent are the different modules (or processes), the higher the chances that this can happen.

In the bottom line, a tendency exists in all complex and inter-dependent systems to degrade with some easiness if all possible exceptions to normal functioning (expected) are not considered and solutions implemented. Think of Distributed Database systems, for example. (Begin to ask are infinite 'multiply connected' distribution versus infinite compression really identical as wave functions. Was it not perfect compression perhaps engendered by perfect recursion / fractality which made one node in your hologram infinitely connectable as wave to every other node in that hologram.)

Therefore, techniques have been created, based in redundancy and replication of data and other specifically located mechanisms of fault tolerance, where problems are detected in more detail.

However, if a given system should be the more flexible, such as, for instance, an artificial intelligence application built to produce medical diagnoses, where the maximum of information should be interconnected in such a way to produce results entrusted, and if possible, than can be able to learn across time, this should also have in consideration other factors despite the fault tolerance, such as its natural evolution in terms of the number of acquired data and its interconnectedness amongst information contexts, so that later, new variables are set out correctly. There exists, therefore, a coherence problem associated with learning. The conclusion is that any system programmed to learn, should seek a state were it can reflect in its internal operation processes at high and constant coherence level, exteriorly. (Begin to ask what if there were a generalizable way to measure the overall INTERNAL coherence in any complex wave system. : first peak amplitude of septum / 2nd order FFT

These two aspects we just mentioned - fault tolerance and coherence in learning systems - are two key criteria whenever we want to implement any kind of flexible system. So, this is a typical computational problem associated with cognitive sciences, because the intelligence and the cognition are, by nature, dynamic: they strongly depend on the context (also dynamic) in which they work. This adaptability is one of the characteristics that more easily enables us to distinguish a biological system from a merely logical non-living system, as is the case of a computer. If we look at it etymologically, the difference lies in the suffix "bio", which may be the expression of the essence of "life". In other words, the limits of the evolution of computational cognitive systems can be found, precisely in Nature, and also, even in the meaning of life. Life appears to be rational, yet slightly

escapes from logic and suggests itself to us as something more than merely probabilistic. This may be the so-called "chaos frontier". This means that if in the future we completely understand it, then maybe we will be able to develop everything that today we only dream about.

However, this approach gets us face to face with (apparently) less scientific and more philosophical problems, and some times, even religious ones. This hinders the work of those that try limiting their investigation to only that which is tangible,

measurable and not just intuitive and abstract. However, sciences such as physics already reached this stage and, forced into the inevitable approach of this more metaphysical perspective, they dove into "fields" that relate quantum mechanics with quite specific religious literature, as it is the case of Vedic texts and their exquisite approach to the nature of the universe.

Keeping our study in the measurable dimensions, let us try to elucidate a little bit more the nature of this problem. What is true for biology, is also true for the simple field of logic. This term, only lacks that element of life - the bio suffix- that we still don't know very well how to define. The prefix 'bio' is intimately related with the nature of consciousness itself. Therefore our concern focuses on discussing this theme.

If we intend to clarify all of the less clear aspects of the cognitive studies and all of the sciences that arise from them, namely the subject of memory and of learning, we must also in parallel study the area of neurobiology. However, here a problem shows may arise. Sometimes, it is not enough to be bounded to the study of one area. As we shall see, -in the nature and essence of biology and life force and awareness - their own nature lives beyond that beyond the concepts that academically define it nowadays. It is correct that the understanding of the operation of cellular nets in the brain originated the development of countless processes in the areas of medicine and in computation, namely in neural nets, but as

we will demonstrate, it is a mistake to end here. And, as a mistake, its repercussions are incalculable.

It is with this fundament that we intended to demonstrate that the approach of the Cognitive Sciences, only supported by the Neo-Darwinian and Newtonian vision of the world, is incomplete and limiting. The very nature of morphogenesis - the growth of form from a single embryonic cell - demonstrates this dramatically and it allows us to reach conclusions that are precious to the future of this study.

Life exhibits an exceptional functioning from the evolutionary and systemic point of view. Biology is dynamic, flexible, and has fault tolerant systems. Above all, LIFE demonstrates memory capacities and fantastic cognition abilities, reaching, some believe, its maximum sophistication with Human Beings, some cetaceans and other extremely complex life forms.

The intelligence that shapes and steers biological morpho-genesis brings up unprecedented questions in the history of biology and physics. The structured growth of cellular matter is a process that, obviously, doesn't happen with inanimate matter. However, we say "obviously", but the mechanism, or the simple explanation that resides in that differentiation is still unclear. The actual physical knowledge of the universe is not capable to coherently explain morpho-genesis. Erwin Schrodinger and others acclaimed scientists say it peremptorily.

Later, the theory of morphogenetic fields was born among these questions a located field situated inside and around a morphic unit, that organises its characteristic structure and activity pattern. These fields are behind the complexity levels of a unit of this nature. They are formed and stabilised by morphic resonance with other previous units (in time) that were on the influence of similar fields. Consequently, these new units contain a type of cumulative memory.

A morphic unit is destined to accomplish the "shape function", as well as organisation patterns. It can be an atom, a molecule, a crystal, a cell, a plant, an animal, a pattern of instinctive behaviour, even a social group, an ecosystem, a planet, a planetary system or even a galaxy. These units are organised in hierarchies of units inside of units. A crystal, for instance, contains molecules, which contain atoms, which contain electrons and nuclei, that contain nuclear particles, that contain quarks....

Fig.1-A crystal as a unit of morphic units

However, a few years ago, according to the vision that science had regarding the study of the morphogenesis, we were taken to believe that these fields could not include such units as a pattern of behaviour or even something more subjective such as a social group. The first biologists, due to faith in the supremacy of matter as the cause of all existence (upward causation), ignored such possibilities. It was later, with Rupert Sheldrake, with the presentation of his theory of morphic resonance, that the inclusion of morphic units based on non-local fields (non-locatable in space and time) appeared.

Such hypothesis is contrary to the newtonian vision of the universe, in which only local units (measurable) exist, and obviously, physically detectable. Nonetheless, morphogenesis grasps the field of teleology - the idea that a final purpose is guiding the system. Rupert Sheldrake integrated this concept in his study, as well as the non-locality principle of the fields and the non-materialistic perspective (downward causation). In general, the morphic fields proposed by Sheldrake have a purpose and they are non local. Therefore, they are not material. However, we know that matter, as an effect of a superior cause, is always affected by the principle of morphic resonance.

Fig.2-Downward Causation through the Ressonância Mórfica. Unlike the matter, the fields live at a dimension no-place.

Sheldrake suggests that as soon as a shape is created, its field is constantly reinforced by the replication of itself. This explains memory in morphogenesis. However, the origin of morphic fields is the main subject, and for us to analyse it, we will stay with the examples of live and local morphic units. Let us look at the following: the true problem of the morphogenesis is the nature/essence of non-locality, right? It is the problem of trying to explain how local interactions are capable of controlling a global development of a system. In other words, how, for instance, a cell in the neck knows where it is relative to the whole body, in such way that its function in shaping is properly activated so that it does what is necessary in the neck?

From the causal point of view of matter, the immediate deduction is that a map of functions exists in the DNA of the cell. This could be a perfectly plausible explanation, if we didn't have the following problem: if that map really exists at cellular level, then how does a cell know that it must active only a specific function during shaping? Lets take a look at things in a different way: where is placed the information that tells the cell that it just needs to activate the functions relative to that part of the body where she lives? When our body was only two cells, where was that decisive information for the local recognition of the future evolution of the human shape? An implication shows up: there must exist a general map, a goal-plan that works non-locally, spatially and temporally, so that a small DNA strand from that cell can be able to influence a vast group of cells in a macro-area of spatially defined volume, during the whole evolution of the biological being that it belongs to.

Force fields, unlike particle fields, form a continuous region, they are a whole. In them, an indivisible unit exists. If we cut an apple - a field of particles - in two parts, we will obtain two different half from that same unit. That half is different from the whole. However, if we cut a magnet in two, the magnetic field (force field) of each

half is same as the first, the unit. This way, we will be able to obtain two fields of the same magnetic field and not two half of the original.

Rupert Sheldrake, unlike biologist C.H. Waddington, presented an interesting solution but not applicable to the reality of the morphogenesis for being totally locale ("Waddington fields"). He suggests that the morphic field starts up the DNA in the cells, in the sense of guiding the choice of the functions (in the local map) that must be activated in the process of evolution of a biological shape. For him, DNA is a receiver and never a generator of information. Just as a radio receives a signal because it is tuned (it has a specific resonance) with an electromagnetic wave, in a similar way, DNA receives from morphogenetic fields the instructions for the activations of its codes.

Corrected Translation Ends Here Gustavo Figueiredo

images and text complete in the original, awaiting translating.-

Biological Effects of Scalar Waves

<http://www.altered-states.co.nz/cgi-local/reload.cgi?//google.yahoo.com/bin/query?p=scalar+waves&hc=0&hs=0^/teslar/effect.htm>

FROM THE U.S. PSYCHOTRONICSASSOC. JOURNAL (1989) IN PRESS

EFFECT OF NON-HERTZIAN SCALAR WAVES ON THE IMMUNE SYSTEM

Dr. Glen Rein * Stanford University Medical Center * Stanford, CA.
ELF Cocoon International * St. Francisville, IL.

The recent availability of a scalar generator in the form of a Tesla watch has facilitated scientific research into the biological effects of this new type of non-Hertzian electromagnetic (EM) energy. The scientific rational for conducting this type of research is discussed with respect to the non-linear nature of biological systems. Preliminary research findings are :- presented which indicate that scalar fields enhance the immune system, as measured by increased DNA synthesis in lymphocytes. Since this effect supersedes that observed by the EM field produced by the watch in the absence of the mobius strip, it can be concluded that scalar energy is more biologically active than traditional EM fields, at least in this system.

INTRODUCTION

Although numerous studies indicate the biological significance of linear, transverse EM and acoustic waves, relatively little is known about the role of non-linear, non-

Hertzian waves in biological systems. Such a role for non-Hertzian waves is likely since recent quantum mechanical analysis of biological processes has revealed the inherent non-linearity(1). Thus contrary to traditional thermodynamic theories, biochemical reactions can occur far from equilibrium and are not always dispersive and degenerative. Based on non- linear mathematical analyses of Schrodinger's EM equations, quantum mechanical models have been developed which describe subatomic quasi-particles like excitons and plasmons (2), and solitons(1). Recently it has been proposed that these quantum particles store and carry biological information along helical macromolecules like DNA(3). It has also been suggested that they are generated and propagated along helical proteins in the cell membrane in response to weak EM radiation in the visible(4) and extremely low frequency(5) spectrum. Since these quasi-particles can propagate in silicon dioxide crystal lattices(), the author has previously proposed in the Crystalline Transduction Theory(6) a bidirectional transduction of non-Hertzian waves to transverse EM waves by liquid crystals in the cell membrane. It sis also likely that non-Hertzian waves propagate throughout the body via the crystalline lattices of the elaborate collagen network comprising the extracellular space(7). These results suggest a new non-linear regulatory network in the body with properties best described by quantum physics. Although the relationship between this new network and the endogenous linear EM fields in the body (both pulsating and stationary) is unknown, theoretically non-linear waves can couple to and interact with transverse EM fields.

Since linear EM fields are known to effect biological systems, it is likely that non-linear fields will be similarly if not more biologically active. Indeed non-linear irregularities in square wave pulses generate EM fields which are usually more biologically active than purely symmetrical fields. Other wave forms exhibiting non-linear properties include non-Hertzian scalar potentials. Scalars, mathematically

described in the original Maxwellian EM equations, are the electric and magnetic components comprising transverse EM vectors. Since scalars (but not transverse EM vectors) exist in 5-dimensional space/time, they do not decay with time or distance from their source and have other unusual quantum properties(8). Although scalars have not been considered by the biological community, they are well known in astrophysics, geology and hydrodynamics. They were first utilized by Nicholas Tesla at the turn of the century when he demonstrated wireless transmission of electricity without a loss of energy(9).

Biological research with scalars has recently been prompted by the availability of a scalar generator. Dr. Andrea Puharich first utilized a mobius loop to cancel the EM fields generated from an ordinary digital wrist watch. The analog Tesla watch, marketed by ELF Cocoon International has been shown to radionically to generate scalar fields, although it is unclear whether this also applies to the original digital watches. In addition to the numerous case reports from people wearing the Tesla watch, scientific studies are beginning using the watch as a source of scalar energy. The watch has the unique advantage for scientific studies since it is possible to remove the mobius loop, thereby generating the EM carrier in the absence of the scalar wave. Dr. Eldon Byrd has shown that wearing the analog Tesla watch increases the amplitude of the EEG recordings, particularly in the low frequency range. Dr. Persinger was first to utilize cells *in vitro* to study the action of scalar fields on mast cell degranulation(11). Scalar fields were generated by partially canceling two polarized magnetic fields) 0.5Hz, 10pT) by intersecting them in air. Dr. Puharich has organized a study at the Max Planck Institute in Germany where they have shown that E. coli microorganisms exposed to 8.00Hz scalar fields have increased activity of the RAD-6 gene which codes for proteins involved in DNA repair(12). The author has also utilized the *in vitro* approach to show that the scalar

fields generated from the analog watch inhibit neurotransmitter uptake into nerve cells(13) via the same mechanism as tricyclic antidepressants.

MATERIALS AND METHODS

Using standard laboratory procedures(14), a mixed lymphocyte fraction was isolated front whole blood obtained from three healthy volunteers within 24 hours, after being drawn. The procedure involves layering the blood onto a Histopacque (Sigma Chemical Co.) centrifugation gradient and isolating the mononuclear cell population from the interface. Monocytes were then removed by differential plating onto plastic petri dishes. The mixed lymphocyte fraction was then layered onto a second Histopacque gradient to remove dead cells and debris. The resultant fraction is a purified mixture of T and B lymphocytes. The lymphocytes were plated onto 35mm plastic petri dishes at a seeding density of 1x10⁵ cells and incubated at 37°C with 1.0 d Ci/ml (³H)-thymidine (93 Ci/mmol, Amersham Corp.) for 48 hours in a standard carbon dioxide (5%) incubator. Control dishes were exposed to Tesla analog watches with the mobius strip removed. Experimental dishes were exposed to analog watches containing the mobius strip. All watches were obtained from ELF Cocoon International. A petri dish (with its cover) was placed under each watch immediately after addition of the radioactive precursor. Control and experimental dishes were placed in opposite sides of a dual incubator separated by a metal wall to minimize possible carry over effects from the scalar fields. To assess the viability of the three lymphocyte preparations, their proliferation in response to standard mitogens was determined. Cells were treated as described above, except that pokeweed mitogen (50Mg/ml) was added immediately prior to the addition of thymidine. After a 48 hour incubation at 37°C, the DNA was precipitated using 5% trichloroacetic acid and the immunoperoxidase precursor was separated from that taken up by DNA using Whatman microfiber glass filters (GF/C). The amount of

thymidine incorporated into DNA was measured using a standard scintillation counter. Results are expressed as cpm/10⁵ cells. Thymidine incorporation is directly related to the rate of cell proliferation. Seven experimental dishes and 6 control dishes were exposed to the energy from the watch in three independent trials on three different days.

RESULTS AND DISCUSSION

The data in Table 1 indicate that lymphocyte exposed to Tesla watches containing a mobius strip showed a 76% increase in proliferation as compared to lymphocytes exposed to watches lacking the mobius strip (90 vs 159 cpm/10⁵ cells). These results indicate that the presence of an 8Hz scalar wave caused a more profound enhancement of immune function than observed by an 8Hz linear EM field. Although non-linear waves have been postulated to be more biologically active than linear EM fields(*u*), this hypothesis had not been verified experimentally. These results are therefore the first to show that scalar waves are more active than EM fields, at least in the 8Hz region.

Lymphocyte proliferation in the absence of any watch or chemical mitogen corresponds to a blank value of 67 + 20 cpm/10⁵ cells. Thus the EM field from control watches (no mobius strip) enhanced lymphocyte proliferation by 34%, whereas the scalar watches increased proliferation by 137% compared to blanks. Other investigators have also shown that weak EM fields can stimulate lymphocyte proliferation(*15*). The magnitude of their EM effect is similar to that reported here.

The data in Table 1 are proliferation values obtained for the two types of watches minus blank values. The zero values indicate that the small EM effect on proliferation was not found in 2 out of 6 cases. This corresponds to clinical observations which indicate that as many as two-thirds of the population are not

Table 1:

	TRIAL CONTROL	WATCH SCALAR	WATCH
1	10375	2173295	36960
2	4029	514365	6153247
3	744	Mean 90159	S.E.M 3153

Results are calculated from duplicate samples simultaneously exposed to either control watches (lacking a mobius strip) or scalar watches (containing a mobius

strip.) The values are expressed as counts per minute (cpm) of radioactive thymidine incorporated into DNA normalized to cell numbers (105 cells). The value obtained from blank dishes (identical conditions except not exposed to any watch) has been subtracted from the values in the Table. A value of zero therefore indicate the control watch had no effect on lymphocyte proliferation in that trial. Results are significant at p<0.01.

The magnitude of the scalar effect can also be compared with chemical stimulation of the immune system with pokeweed mitogen. This mitogen stimulated the lymphocytes used in this study by 149% compared with blanks. Thus the scalar waves enhanced the immune function to approximately the same degree as was obtained the standard chemical stimulation. This indicates the profound influence the scalar waves have on lymphocyte proliferation *in vitro*.

The results reported here also indicate that scalar energy can directly effect the cells of the immune system. Similar results were reported by the author who observed direct effects of scalar waves on nerve cells *in vitro*(13). The use of tissue culture techniques in these and other experiments, indicate that scalar fields can have direct effects at the cellular level independent of psychosomatic effects mediated by the mind. However, it is still possible that scalar waves will also effect the mind and may explain some of the physiological effects observed clinically, ea. independent of direct cellular effects. The complex relationship between mind and body is now receiving much attention and a new field of research, called Psychoneuroimmunology, as emerged to address these questions(16). With respect to lymphocytes, it is now known that mental attitude and stressful life events, as well as diet, drugs and the amount of sleep can all inhibit lymphocyte proliferation. To further complicate the picture lymphocytes secrete chemical messengers, called

cryptokines, which can influence the brain. Thus the communication between the nervous and immune system is bidirectional.

Although the scalar field generated from the Tesla watch has profound effects on lymphocyte proliferation, it should be pointed out that we do not know to what extent these or other biological effects will depend on the amplitude and frequency of the signal, as is known for EM fields. Thus the 8Hz signal used here may not be optimal with regards to stimulating the immune system. Whether similarly large effects will occur clinically in individuals wearing the watch is also unknown. Needless to say, this situation is far more complicated since lymphocyte proliferation will be influenced by a wide variety of biochemical(17) psychological(18) and electromagnetic regulatory factors. It is presently unknown to what extent scalar and electromagnetic fields interact. If scalar fields are clinically immunoenhancing, the potential exists for treating immunodeficient diseases like AIDS, cancer, Epstein Barr and even flu symptoms with scalar energy. The results presented here indicate that this approach should be far more efficacious than using conventional linear EM fields.

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OCCAM'S RAZOR

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What is Occam's Razor?

Occam's (or Ockham's) razor is a principle attributed to the 14th century logician and Franciscan friar, William of Occam. Ockham was the village in the English county of Surrey where he was born.

The principle states that "Entities should not be multiplied unnecessarily."

Sometimes it is quoted in one of its original Latin forms to give it an air of authenticity.

"Pluralitas non est ponenda sine necessitate"

"Frustra fit per plura quod potest fieri per pauciora"

"Entia non sunt multiplicanda praeter necessitatem"

In fact, only the first two of these forms appear in his surviving works and the third was written by a later scholar. William used the principle to justify many conclusions including the statement that "God's existence can not be deduced by reason alone." That one didn't make him very popular with the Pope.

Many scientists have adopted or reinvented Occam's Razor as in Leibniz' "identity of observables" and Isaac Newton stated the rule: "We are to admit no more causes of natural things than such as are both true and sufficient to explain their appearances."

The most useful statement of the principle for scientists is,

"when you have two competing theories which make exactly the same predictions, the one that is simpler is the better."

In physics we use the razor to cut away metaphysical concepts. The canonical example is Einstein's theory of special relativity compared with Lorentz's theory that ruler's contract and clocks slow down when in motion through the Ether. Einstein's equations for transforming space-time are the same as Lorentz's equations for transforming rulers and clocks, but Einstein and Poincaré recognised that the Ether could not be detected according to the equations of Lorentz and Maxwell. By Occam's razor it had to be eliminated.

The principle has also been used to justify uncertainty in quantum mechanics. Heisenberg deduced his uncertainty principle from the quantum nature of light and the effect of measurement.

Stephen Hawking explains in A Brief History of Time:

"We could still imagine that there is a set of laws that determines events completely for some supernatural being, who could observe the present state of the universe without disturbing it. However, such models of the universe are not of much interest to us mortals. It seems better to employ the principle known as Occam's razor and cut out all the features of the theory which cannot be observed."

But uncertainty and the non-existence of the ether can not be deduced from Occam's Razor alone. It can separate two theories which make the same predictions but does

not rule out other theories which might make a different prediction. Empirical evidence is also required and Occam himself argued for empiricism, not against it.

Ernst Mach advocated a version of Occam's razor which he called the Principle of Economy, stating that "Scientists must use the simplest means of arriving at their results and exclude everything not perceived by the senses." Taken to its logical conclusion this philosophy becomes positivism; the belief that there is no difference between something that exists but is not observable and something that doesn't exist at all. Mach influenced Einstein when he argued that space and time are not absolute but he also applied positivism to molecules. Mach and his followers claimed that molecules were metaphysical because they were too small to detect directly. This was despite the success the molecular theory had in explaining chemical reactions and thermodynamics. It is ironic that while applying the principle of economy to throw out the concept of the ether and an absolute rest frame, Einstein published almost simultaneously a paper on Brownian motion which confirmed the reality of molecules and thus dealt a blow against the use of positivism. The moral of this story is that Occam's razor should not be wielded blindly. As Einstein put it in his Autobiographical notes

"This is an interesting example of the fact that even scholars of audacious spirit and fine instinct can be obstructed in the interpretation of facts by philosophical prejudices."

Occam's razor is often cited in stronger forms than Occam intended, as in the following statements...

"If you have two theories which both explain the observed facts then you should use the simplest until more evidence comes along"

"The simplest explanation for some phenomenon is more likely to be accurate than more complicated explanations."

"If you have two equally likely solutions to a problem, pick the simplest."

"The explanation requiring the fewest assumptions is most likely to be correct."

... or in the only form which takes its own advice...

"Keep things simple!"

Notice how the principle has strengthened in these forms which should be more correctly called the law of parsimony, or the rule of simplicity. To begin with we used Occam's razor to separate theories which would predict the same result for all experiments. Now we are trying to choose between theories which make different predictions. This is not what Occam intended. Should we not test those predictions instead? Obviously we should eventually, but suppose we are at an early stage and are not yet ready to do the experiments. We are just looking for guidance in developing a theory.

This principle goes back at least as far as Aristotle who wrote "Nature operates in the shortest way possible." Aristotle went too far in believing that experiment and observation were unnecessary. The principle of simplicity works as a heuristic rule-of-thumb but some people quote it as if it is an axiom of physics. It is not. It can work well in philosophy or particle physics, but less often so in cosmology or psychology, where things usually turn out to be more complicated than you ever expected. Perhaps a quote from Shakespeare would be more appropriate than

Occam's razor: "There are more things in heaven and earth, Horatio, Than are dreamt of in your philosophy."

Simplicity is subjective and the universe does not always have the same ideas about simplicity as we do. Successful theorists often speak of symmetry and beauty as well as simplicity. in 1939 Paul Dirac wrote,

"The research worker, in his effort to express the fundamental laws of Nature in mathematical form should strive mainly for mathematical beauty. It often happens that the requirements of simplicity and beauty are the same, but where they clash the latter must take precedence"

The law of parsimony is no substitute for insight, logic and the scientific method. It should never be relied upon to make or defend a conclusion. As arbiters of correctness only logical consistency and empirical evidence are absolute. Dirac was very successful with his method. He constructed the relativistic field equation for the electron and used it to predict the positron. But he was not suggesting that physics should be based on mathematical beauty alone. He fully appreciated the need for experimental verification.

The final word falls to Einstein, himself a master of the quotable one liner. He warned,

"Everything should be made as simple as possible, but not simpler."

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Human Consciousness Influence on Water

Structure

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The ability of human consciousness to change the structure of water is indicated by experiments utilizing light scattering indicatrix recordings. Alterations of scattered light intensity, correlated with an operator's intention, can exceed by factors of 10 to 1000 the statistical variances observed before or after operator interaction. Such effects have been demonstrated by several operators, and appear to be operator-specific, although enhancementable by training.

"Hado creates words. Words are the vibrations of nature

Therefore beautiful words create beautiful nature.

Ugly words create ugly nature. This is the root of the universe"

by Masaru Emoto

Masaru Emoto And The Hado Institute

In 1986 Dr. Emoto created the IHM Corporation in Tokyo, he is chief of the Hado Institute which studies and promotes the concept of energetic content in words. The NMT interpretation of this is that words are metaphors by which specific meaning and intent are brought to consciousness. In October of 1992 he received certification from the Open International University as a Doctor of Alternative Medicine. Dr. Emoto's two part volumes of photomicrographs documenting the influence of intent on crystallization of water are beautiful and graphic representations of the concept

that thought and feeling can effect matter at a distance. The books are available from <http://www.hadonet>, Emoto's website.

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